CHAPTER IV: OPPORTUNITIES FOR INDIVIDUAL STUDY AREAS

INTRODUCTION

This chapter describes the conservation objectives of the program at a higher level of geographic specificity than the previous chapters. Its purpose is to allow the reader to identify, within a particular region, how the Placer Legacy program is to be applied. This chapter provides specific information, in both narrative and graphical form, on how Placer Legacy could benefit each area of the County.

The structure of the chapter is based upon a geographic division of the county into ten "study areas" (Map 4) based upon common geographic and political boundaries. They include the following:

- Agricultural Valley
- South Placer Urban
- Loomis Basin
- Sheridan/Garden Bar
- Auburn/Bowman
- American River Canyon
- Foresthill
- Lower Sierra
- West Slope Sierra
- East Slope Sierra

These study areas were created simply to provide focus to implementation efforts. They do not represent geographic prioritization or preferences. Nor do the divisions imply that there is no overlap between geographic areas. Because many program objectives transcend sociopolitical boundaries, implementation measures will often apply to more than one study area. Examples of conservation targets that span multiple study areas include watershed integrity, wildlife migration corridors and scenic transportation routes.

Each study area discussion contains a physical description of the area, the trends that will affect the area over time, particular stressors and conflicts (including impacts on the physical environment) and a list of recommendations. For a discussion on the criteria to be used in prioritization of conservation objectives and recommendations, please refer to Section B in Chapter III. Due to various characteristics of the program, most importantly the willing seller requirement and dependence on funding availability, many of the recommendations may be implemented as opportunities arise, rather than according to a predetermined set of priorities.

SECTION A. AGRICULTURAL VALLEY

Physical description

The *Agricultural Valley* study area (Map 4a) bounded by Highway 65 to the east and north, Sutter County to the west, and Baseline Road to the south, is characterized by flat (0-100 feet) terrain, poorly-drained clay-dominated soils and broad floodplains (Map 17). Commercial farm operations, dominated by rice, grain and hay crops, and pastureland, are situated at the fringe of the Central Valley's agricultural heartland (Maps 12, 25; Figure 4-3) Many operations are relatively small, owner-operated farms, in contrast to the agribusiness domination of much of the Sacramento and San Joaquin Valley.

Valley grassland is the dominant natural community, with vernal pools forming on hardpan soils (Map 19; Figure 4-1; Table 4-11). Livestock grazing, soil preparation for cultivation (e.g., discing and land leveling), and the introduction of non-native annual grasses have significantly altered the terrain and floristic composition of this community, which nonetheless provides important foraging and breeding habitat for numerous species. Vernal pool complexes have been degraded and fragmented by various agricultural activities and are isolated from vernal pool systems to the south by urban expansion in the Sacramento Metropolitan area.

The two major streams draining western Placer watersheds are Auburn Ravine and Coon Creek; Markham Ravine, Yankee Slough, King Slough, Orchard Creek, Pleasant Grove Creek and Curry Creek are smaller, intermittent drainages (some are now perennial due to agricultural/urban runoff) that also flow through the agricultural valley (Map 17). The natural flow through some of these channels is supplemented by water conveyed for agricultural use by Placer County Water Agency, Nevada Irrigation District, South Sutter Irrigation District and various point-source wastewater discharges. After leaving Placer County, these creeks feed into the East Side Canal and the Cross Canal, which eventually joins the Sacramento River at the border between Sutter and Yolo Counties (Map 17). Riparian woodlands of varying width and structural complexity line the creeks that drain western Placer County watersheds (Map 18). In general, this riparian zone has been severely reduced and converted to agricultural uses. Livestock grazing has resulted in streambank erosion and sedimentation, while pesticide runoff may also impact water quality and aquatic habitat.

The Agricultural Valley lies within the Pacific Flyway, an important bird migration corridor through Central California. During the winter months, natural wetlands and flooded rice fields provide important stopover and feeding areas for migratory waterfowl and shorebirds (Map 33). Private duck hunting clubs, as well as pheasant hunting clubs on drier lands, are the primary types of semi-public recreational opportunities in this area.

Trends

The open space and agricultural resources in the Agricultural Valley area are perhaps the most dynamic in the county, with a burgeoning human population increasingly drawn to the relatively inexpensive urban fringes. The vast majority of land in this area is privately owned without any form of long-term protection (Map 10). Although the agricultural designation in the County's General Plan restricts the subdivision of parcels into less than 80 acres for a majority of the area, future General Plan amendments or annexations by the Cities of Roseville and/or Lincoln could quickly remove this barrier to development (Map 5). Growth pressures abound due to the proximity of urban development adjacent to the farmlands and also due to major infrastructure improvements adjacent to or within the study area (e.g., Placer Parkway or the Highway 65 bypass) (Map 27). Placer County has the second highest rate of non-renewed Williamson Act contracts in the State, with most of the expired contract lands being subdivided once the contract has expired. In other cases, the contracts are expiring due to land speculation that growth pressures will result in lands being converted to non-agricultural uses. Land speculation is particularly intense in the Pleasant Grove watershed west of Roseville, proximity to urban infrastructure and the proposed Placer Parkway extension are serving as a potential magnets for new development.

Vernal pool grasslands are most immediately threatened by this growth trend, while creeks and riparian zones would face further degradation of upland habitat and water quality with urbanization of the surrounding watersheds. Commercial agriculture is also in a precarious position, as urban development gradually encroaches upon Placer County's most productive farmlands and speculation drives up land values, making it more difficult for landowners to pass their farms on to the next generation.

Stressors and Conflicts

Agriculture - Agriculture is the predominant land use within the study area. Conflicts between land use types are minimal. Generally, the various types of agricultural operations function well together and the low density of residential land uses reduce conflicts with homeowners, most of whom are farmers or farm employees. Stressors and conflicts are largely generated from outside factors such as increased commuter traffic on local roadways, infrastructure improvements displacing or fragmenting farmlands (e.g., Placer Parkway and the Highway 65 bypass), growth inducing pressures, and land use conflicts with urban land uses in adjoining study areas. In addition to land use conflicts, changes to the local, state or national agricultural economy or changes in weather patterns may have a detrimental impact to the study area's economy. Lastly, the loss of agricultural surface water to other uses, or an increase in the price of agricultural water due to increased pumping or delivery costs, could significantly disrupt farming operations.

Biological Resources - Compared to the condition of these lands prior to agricultural and mining activities, the diversity of biological resources has diminished over time. It is presently presumed that biological resources have reached a dynamic equilibrium within the environment, although changes in individual farm operations may disrupt or enhance fish and wildlife locally. External factors, however, can have detrimental impacts on biological resources within the study

area (e.g., water quality impacts, increased traffic, and fragmentation and disturbance along the urban-agricultural interface).

Under the current land use configuration, no wholesale changes with significant impacts on biological resources are anticipated. However, conversion to non-agricultural land uses following general plan amendments or annexations would cause major disruptions to the biological diversity of the area.

Outdoor Recreation - Recreational activities within this area occur wholly upon private lands. No public recreation lands exist within the study area, although some use of county roads for cycling does occur. The majority of recreational land use is based upon hunting and fishing activities, including waterfowl clubs, pheasant clubs and fishing access. The greatest potential threats to these activities are land use conflicts and reductions in game numbers.

Cultural Resources - Few cultural resources exist within the study area. Some Native American sites are presumed to exist, especially in areas adjacent to riparian corridors where gathering and processing activities likely occurred. Future impacts to these resources under current permitted land use activities will be limited. A small number of privately owned historical farmhouses also exist, though the condition of these historical resources is not known.

Scenic Resources/Urban Separators - The chief threat to the study area is the potential conversion from agriculture to urban and suburban development. The relatively low cost of agricultural land, the potential availability of infrastructure and the proximity to existing services make this an area susceptible to a significant amount of land speculation. To the south, the area will be bordered by proposed urban land uses in the Placer County General Plan. To the west, it may be encroached upon by industrial uses in the Sutter County General Plan. To the east it is facing encroachment by a mix of urban land uses in the County General Plan and the General Plans of the City of Roseville and Lincoln. The growth pressures and conflicts associated with this land use pattern could result in the conversion of these lands following successful general plan amendments and/or annexations. The resulting loss of the open character of this area would not only diminish the agricultural economy of Placer County, but would displace a unique scenic resource.

The absence of distinct urban separators and buffers between agricultural lands and growing residential urban core areas are most evident in this study area. Lands designated for agriculture at a density of 1 dwelling unit per 80 acres abut lands designated for 4-6 dwelling units per acre (Map 8). Since 1987, the County has a had a policy to seek a separation of these two conflicting land uses through the establishment of buffers and/or transition areas. Buffers will allow residential areas to develop without the potential nuisance of agricultural operations. Conversely, it allows property that has been designated for agricultural purposes for over 30 years (and in production for over 100 years) to function without the threat of encroachment by incompatible land uses. A permanent separation of the two uses would allow both groups to meet environmental, social and property use expectations.

Higher density land uses in the nearby South Placer Urban area have also generated significantly higher levels of traffic on roads that, until recently, primarily served the agricultural community

and a small amount of local traffic. Today these roads are being used by large volumes of interand intra-county commuter traffic. This increase in traffic creates additional conflicts by disrupting the ability of slow-moving farm equipment to use these roads, and by creating public safety concerns related to the use of roads with minimal improvements for high volumes of traffic.

Public Safety – As in much of western Placer County, the chief public safety threat is associated with flooding. Thousands of acres in the study area will flood with a 100-year storm event (Map 24). Lesser storm events routinely cause local and even regional flooding in the area. The threat to individuals and property is relatively low when compared to threats in urban areas given several factors: 1) only low density land uses are permitted by zoning; 2) a long history of flooding has resulted in the avoidance of flood prone areas; and 3) the use of land for non-residential agricultural purposes is more compatible with flooding events.

Wildland grass fires are also routine events in this area due to the fast growth of annual grasses, which generates a large amount of fuel during the long dry s fire season (typically May to October). Every spring and summer, wildland fires erupt in this area, potentially threatening property and individuals. Most of the fires consume annual upland grass areas though structures and woody vegetation is sometimes threatened. The only significant wooded areas are associated with the riparian zones along the numerous creeks and intermittent drainages. These areas tend to be less threatened than other areas due to the presence of water.

Placer Legacy Program Opportunities

Acquisition/Easement

This is an area in which Placer Legacy can have a significant impact on the future landscape via the acquisition and/or donation of conservation easements and fee title. Because of the importance of agriculture here, multiple-use easements allowing farmers to keep much or most of their land in some type of agricultural production are the most suitable. Outright fee title purchase is more appropriate for non-farmed properties with high-value, relatively undisturbed natural communities. This applies primarily to the areas immediately adjacent to the cities, which are compatible with agricultural uses but currently have more passive management.

One strategy that may be pursued in this area is to purchase for-sale agricultural land, encumber it with a conservation easement, and sell it to a farmer at a reduced cost. This approach saves the program money and will eliminate management responsibilities. Such an effort may assist in maintaining a viable agricultural sector in Placer County, as it provides opportunities for younger generations to enter into agriculture at a cost that is more consistent with farming revenues. There is little doubt that the best way to preserve agriculture in Placer County is to keep it in private ownership.

Agency Coordination

Some farmers may be eligible for the Natural Resource Conservation Service (NRCS) wetland reserve program (WRP), or floodplain easements administered by the same agency. Placer

County will work with the landowners that have already expressed an interest in the WRP, potentially acting as a sponsor to boost their funding priority. The County will also work with independent land trusts, such as the Placer Land Trust, the American Farmland Trust and the California Rangeland Trust, to identify landowners interested in selling agricultural easements.

The County may also work with the various agencies and organizations associated with the Central Valley Habitat Joint Venture Project and their implementation of the North American Waterfowl Management Plan. The Joint Venture has a number of acquisition and restoration goals throughout the Central Valley, including Placer County as part of a region known as the American Basin. A feasibility study prepared in 1995 to determined that it was possible to mix agricultural conservation, flood control, and waterfowl habitat restoration. It is possible that the objectives of that program can be made a part of Placer Legacy if there is local acceptance and an identified funding source for implementation.

Working with team members of the Auburn Ravine/Coon Creek Coordinated Resource Management Plan (CRMP) Placer Legacy will help identify and implement creek restoration projects within these watersheds to improve water quality and enhance habitat for anadromous fish as well as for riparian-associated terrestrial species.

Education/Incentives

The Placer Legacy program will establish a mechanism for providing tax and estate planning assistance to landowners interested in maintaining agricultural operations on their land. Such assistance could be provided through an employee of the program or through an outside contract.

Placer Legacy will also work with the County Agricultural Commission, the County Farm Bureau and local growers' organizations to create new markets for Placer County farm products, and bring new farm operations to Placer County. In addition, Placer Legacy will work with local farm organizations, tourism boards, economic development boards and other organizations to promote agro-tourism in the area, and provide financial assistance (through grants and direct funding) to local growers' organizations.

Table 4-1. Agricultural Valley Implementation Measures

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
AV-1.	Maintain commercially viable agriculture over a large area by promoting the Williamson Act and encouraging the donation of conservation easements, where appropriate.	X			X	X	
AV-2.	Work with local farm organizations to identify districts or regions where agricultural conservation opportunities can be identified and coordinated.	X			X		
AV-3.	Convene a water forum with PCWA, NID and South Sutter Irrigation District to determine how water can be made reliably available for agriculture, as well as habitat conservation and restoration.	X	X		X		
AV-4.	Provide resources to assist farmers and ranchers with tax, estate and easement planning.	X			X		
AV-5.	Support the County's Right-To-Farm Ordinance provisions.	X			X		
AV-6.	Prioritize the acquisition, through purchase of fee title and/or conservation easements, of agricultural property that contains multiple open space resource values.	X	X		X	X	X
AV-7.	Establish a core vernal preserve area by protecting, through a combination of fee title acquisition and conservation easements, several large, biologically diverse vernal pool wetland complexes across the landscape including Mehrten pools if available.	X	X			X	
AV-8.	Preserve small, species-rich vernal pool complexes and surrounding uplands, through a combination of fee title acquisition and conservation easements.		X				
AV-9.	Establish a vernal pool-oriented nature center and interpretive trails.		X	X			
AV-10.	Preserve high quality riparian habitat along Auburn Ravine, Coon Creek, Orchard Creek and Pleasant Grove Creek, through a combination of fee title acquisition and conservation easements.		X			X	

Table 4-1 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
AV-11.	Purchase, for enhancement purposes, riparian zones in areas with diminished habitat integrity.		X				
AV-12.	Provide financial incentives for property owners to expand and/or re-vegetate riparian zones and improve connectivity along lower stream reaches. (Coordinate with AR/CC CRMP.)		X			X	X
AV-13.	Work with property owners to remove or modify barriers to anadromous fish passage along Auburn Ravine and Coon Creek.		X				
AV-14.	Encourage the use of rice decomposition water to improve waterfowl and shorebird habitat.		X	X			
AV-15.	Preserve, through fee title acquisition and/or conservation easements, large upland grassland areas that also provide specific scenic, recreational or biological values.	X	X	X		X	
AV-16.	Purchase easements that provide for the restoration of large areas of fresh emergent wetlands as new waterfowl habitat.		X	X			
AV-17.	Work with the Natural Resource Conservation Service to support new Placer County participants in the Wetland Reserve Program (WRP).	X	X				
AV-18.	Create a large regional park near the south Placer Urban area consistent with adjacent agricultural uses (not necessarily in this study area).	X		X			
AV-19.	Allocate discretionary funding for the preservation of historical and cultural resources.				X		
AV-20.	Identify a location for a regional center recognizing the agriculture, history and traditions of Placer County (not necessarily in this study area).	X			X		
AV-21.	Provide certainty to farmers and ranchers concerning the future extent of urban encroachment by coordinating with cities to create permanent greenbelts around urban areas.	X				X	

Table 4-1 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
AV-22.	Establish permanent transition areas and buffers between urban/suburban areas and agricultural areas through conservation easements and/or fee title acquisition of lands containing multiple resource values.		X	X	X	X	
AV-23.	Provide incentives for property owners to enhance floodplains by increasing retention/detention capacity and allowing streams to reclaim their natural course.		X				X

SECTION B. SOUTH PLACER URBAN

Physical description

The *South Placer Urban* study area is comprised of the cities of Roseville, Rocklin and Lincoln, and County unincorporated areas with urban land use designations in the General Plan. This area forms a cohesive planning unit based on the largely contiguous belt of urban land uses that it contains or will contain at buildout (Map 11). The major population center in Placer County, this area has a current combined population of approximately 122,000 growing to 193,00 by 2022 (Source: Sacramento Area Council of Governments). The area is characterized by flat and gently sloping terrain, ranging in elevation from 100-300 feet, and poorly-drained claydominated and volcanic soils.

Valley grassland, transitioning into open oak savannah, is the dominant natural community, with vernal pools forming on hardpan and Mehrten volcanic mudflow soils. With a few exceptions, urban growth and development within this area has fragmented remaining vernal pool complexes and surrounding upland grasslands, which occur primarily as habitat islands in the midst of urban development. In some cases, these habitat islands are completely isolated from surrounding natural areas. The largest remaining area of vernal pool grasslands occurs along the Highway 65 Corridor, between Lincoln, Rocklin and Roseville (Map 19). A large portion of this area is unincorporated land designated largely for industrial development. The watershed of Orchard Creek, a tributary to Auburn Ravine, is one region that contains more than 1000 acres of protected natural lands including oak savannah, valley grasslands, hardpan and Mehrten vernal pools and riparian areas. The Orchard Creek conservation area has been established largely in response to the mitigation requirements for a number of large projects throughout the region.

Riparian woodlands have been reduced to narrow bands of vegetation, lining creeks that have been channelized and diverted along many reaches (Map18). Flood control is an important element of creek management, as urbanization of most watersheds has resulted in increased surface flows to the creeks and frequent flood conditions. Canopy closure and structural complexity remains high in most areas, although gaps in riparian connectivity are frequent (Map 18). Discharges from urban wastewater treatment plants and other point sources have altered flow regimes and may negatively affect water quality. Auburn Ravine and Dry Creek, which run through the cities of Lincoln and Roseville, respectively, are the major perennial creeks in this area. Antelope Creek, Secret Ravine, Miners Ravine and Linda Creek are important Dry Creek tributaries, while Orchard Creek, with a largely undeveloped watershed, is the main Auburn Ravine tributary.

Very little active agriculture remains in this study area, with the major exception being the area south of Baseline Road and west of Roseville, which contains pastureland, rice, grain and hay crops, and some small orchard areas. Most of this area is designated for urban development in the County's General Plan. The area around the City of Lincoln also contains significant pastureland, rice fields, and grain and hay crops.

Trends

This study area is expected to continue to experience rapid rates of growth when compared to other regions in Placer County, the Metropolitan Sacramento Area and the rest of the state. The various general plans, specific plans and area plans that have been adopted for this region have resulted in millions of dollars of investment in public infrastructure. Therefore, it is assumed that the large-scale conversions of the natural landscape will continue to occur within areas designated for urban growth (Map 8). Conservation areas will tend to be associated with riparian zones, oak woodlands, some isolated vernal pool reserve areas and urban parks (some containing natural areas). As much as 25 percent of the landscape may be in developed and undeveloped open space in a variety of forms if current trends continue.

Some of the remaining important historical and cultural resources may be protected due to local interest or because of important historical values. Native American sites will continue to be protected pursuant to rules governing these resources. Community edges and buffers will not be established between Roseville and Rocklin, according to those cities' general plans. A buffer will exist between the Sunset Industrial Area and the City of Lincoln along Orchard Creek and to a lesser extent between Rocklin and Lincoln where conservation areas have been established along Highway 65.

Stressors and Conflicts

Agriculture – With the exception of the area south of Baseline and west of Roseville, impacts to agriculture are limited within the boundaries of the study area. Some agricultural conversion is anticipated, particularly in the City of Lincoln and its sphere of influence where agricultural operations currently exist. Impacts to adjoining agricultural lands due to land use conflicts and growth-inducing impacts are addressed in the *Agricultural Valley* study area.

Biological Resources - The majority of changes to the landscape will result in the displacement of valley grasslands and oak woodlands. Riparian areas may also be modified for flood control purposes and some encroachment by urban land improvements. In some cases, riparian areas may be wholly displaced (e.g., bridge crossings and flood control structures), although the trend to channelize these areas has been significantly reduced in recent years. Intermittent drainages will largely be displaced and channelized or piped and diverted to storm drain systems. In other cases, riparian areas may see lesser or indirect impacts through encroachment into the tree canopy, recreational uses, vegetative clearing, domestic pet predation, and water quality degradation through urban runoff and/or point discharges. The loss of vernal pool habitats is still anticipated even with the protection afforded by the federal Endangered Species Act, as off-site mitigation is generally permitted. Even when vernal pool habitats are avoided, indirect impacts are anticipated due to human disturbance and fragmentation effects, which include reduced plant and animal dispersal and genetic exchange, insufficient buffer areas to protect pool hydrology and water quality, and insufficient upland habitat for pollinators and vernal pool amphibians. Although once prevalent in the region, Mehrten vernal pools are one of the most threatened of the sensitive resources in the *South Placer Urban* study area (Map 19).

Outdoor Recreation - The public will continue to seek outdoor recreation opportunities, both within and outside of the study area. The ability to satisfy local demand for recreational facilities

may be restricted due to limitations on available revenues. With a growing population and demand for recreational opportunities, some delay or lack of recreational opportunities may occur. In general, however, cities in South Placer county have been successful in providing a wide range of recreational services in a timely manner. The greater demand may be for passive recreation opportunities (e.g., hiking trails), which are not typically provided within an urban environment.

Cultural Resources – The potential loss of important historical resources in this study area may continue due to redevelopment, conversion to other uses, and inadequate maintenance. Some historical preservation options exist where revenues can be identified, but generally, funding is limited.

Scenic Resources/Urban Separators - The need for urban separators is evident throughout this study area. The most dramatic urban/agricultural edge in Placer County exists between this study area and the *Agricultural Valley* study area, particularly along Fiddyment Avenue. Lands designated for agriculture at a density of 1 dwelling unit per 80 acres abut lands designated for 4-6 dwelling units per acre (Map 8). Such a condition will generate a number of land use conflicts and growth-inducing impacts upon agricultural lands. Residential housing and agricultural management activities (e.g., aerial spraying, noise, dust generation) are typically incompatible when adjacent to each other. The expectations of urban/suburban homeowners are often in conflict with the farm/ranch operating requirements resulting in nuisance complaints and other conflicts.

The study area also contains a large industrial-agricultural interface in the Sunset Industrial Area. Fewer conflicts are expected in this region, as agricultural and industrial land management practices are typically more compatible.

When all of these factors are considered together, the potential for farming operations to be disrupted is rapidly increasing as the region grows. Evidence of this impact can be seen in the amount of fallow, non-farmed lands adjacent to urban areas (Map 12) and the withdrawal of these properties from the County's Williamson Act program. These lands are no longer being farmed due to conflicts, land speculation, or uneconomical production levels.

The conversion of the existing agricultural landscape to urban/suburban land uses will arguably reduce the scenic quality of the area if an open landscape is perceived as having a greater aesthetic appeal than a developed landscape. The development of highly-visible hillsides and ridgelines will also have a significant impact on the aesthetic character of the area.

Public Safety – Public safety concerns in this area are chiefly focused on flooding associated with Auburn Ravine, Pleasant Grove Creek and, most importantly, Dry Creek and its tributaries. The region has experienced significant flooding events in recent years and even with recent flood control improvements, additional flooding is possible. Environmental constraints associated with flood control impacts will continue to delay the implementation of a region-wide flood control plan. The majority of the flooding impact is associated with current land uses. New development projects are designed to avoid encroachment into flood prone areas, based on new and improved hydrologic modeling techniques.

Placer Legacy Program Opportunities

Acquisition/Easement

Due to the predominance of existing and anticipated urban land uses and the consequent high cost of land, acquisition as a conservation tool will be limited. Easements will be used by local government (cities and the County) as a means of encumbering certain lands, such as riparian and wetland areas, where the title to the land remains privately held. In most cases, the use of easements will be associated with portions of discretionary land development projects, rather than large-scale conservation efforts. It should be assumed that the cities in this area will maximize the use of land within their respective city limits and large conservation areas will exist outside the urban boundary.

Agency Coordination

Agency coordination will be important in order to identify opportunities for joint conservation planning efforts, the implementation of a comprehensive regulatory compliance plan for endangered species and wetlands (i.e., HCP/NCCP). For recreational planning, developing trail connections can only occur between cooperating entities in this area (Map 21). One jurisdiction will not be able to implement a comprehensive regional trail plan without the cooperation of adjoining entities. Cooperation could include the Cities of South Placer as well as Sacramento County and the City of Citrus Heights.

Regional cooperation and coordination for the development of a HCP/NCCP will be necessary if impacts to sensitive species within the incorporated cities are to be mitigated on lands in the unincorporated area. A significant amount of local, state and federal assistance and coordination will be required for such a plan to be successfully developed and implemented.

Education/Incentives

Educational programs in this area will focus on encouraging environmental stewardship and fostering an appreciation for the local natural environment among urban dwellers. One way to accomplish this is through the development of an outdoor education program for urban school children, including natural areas both within and outside the study area. Placer Legacy can work with the various school districts to develop curricula for K-8 and high school students, and should take advantage of existing programs already being developed through the Dry Creek CRMP and the Dry Creek Conservancy. Presently teachers and students who seek opportunities to participate in outdoor education opportunities have access to the Placer Nature Center but are otherwise limited. Outdoor education opportunities in Sacramento County are being used to fulfill local demand for such programs.

In addition, promoting local agricultural products and educating the urban-dwelling public about Placer County's rich agricultural heritage will help establish connections between people and their rural environment, while helping to sustain the economic viability of Placer County agriculture.

Finally, for landowners with larger properties at the urban fringes, educational materials that describe appropriate stewardship of riparian and oak woodland communities can be developed.

Table 4-2. South Placer Urban Implementation Measures

	Table 4-2. South Placer Urban Imp	Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
SP-1.	Work with farmers and ranchers to protect agricultural lands outside of designated development areas through the use of conservation easements.	X			X	X	
SP-2.	Provide certainty to farmers and ranchers concerning the future extent of urban encroachment by coordinating with cities to create permanent greenbelts around urban areas.	X			X	X	
SP-3.	Support the County's right-to-farm ordinance provisions.	X			X		
SP-4.	Promote sales of locally grown produce and help create additional markets for agriculture.	X			X		
SP-5.	Provide resources to assist farmers and ranchers with tax, estate and easement planning.	X			X		
SP-6.	Work with local CRMP groups to restore habitat for salmon, steelhead and amphibians in Auburn Ravine and Dry Creek.		X				
SP-7.	Work with property owners to remove or modify barriers to anadromous fish passage along Auburn Ravine and Dry Creek.		X				
SP-8.	Acquire and manage remaining Mehrten vernal pools in a natural landscape.		X			X	
SP-9.	Acquire and manage high-density vernal pool fields along Highway 65.		X			X	
SP-10.	Protect large remaining expanses of rangeland by promoting the Williamson Act and donation or sale of conservation easements.	X	X			X	
SP-11.	Purchase conservation easements to improve the connectivity and quality of stream zone vegetation to improve wildlife habitat and water quality.		X				
SP-12.	Create regional trail connections and develop new regional trails, consistent with adjacent agricultural uses.			X			
SP-13.	Create a multi-use trail crossing of Interstate 80 and the Union Pacific railroad tracks.			X			
SP-14.	Create a Dry Creek parkway trail connection to Gibson Ranch.			X			

Table 4-2 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
SP-15.	Create a nature center and interpretive trails to educate the public about oak woodlands, vernal pools and/or grasslands.		X	X			
SP-16.	Provide discretionary funds to protect historical and cultural resources.				X		
SP-17.	Work with developers and property owners to protect scenic transportation corridors, vistas and ridgelines in the lower foothills.					X	
SP-18.	Identify a location for a regional center recognizing and celebrating the agriculture, history and traditions of Placer County (not necessarily in this study area).	X				X	
SP-19.	Provide certainty to farmers and ranchers concerning the future extent of urban encroachment by coordinating with cities to create greenbelts around urban areas.	X				X	
SP-20.	Establish permanent transition areas and buffers between urban/suburban areas and agricultural areas through conservation easements and/or fee title acquisition of lands containing multiple resource values.	X	X	X	X	X	
SP-21.	Preserve, through fee title acquisition and/or purchase of conservation easements, an open space buffer along Orchard Creek.		X				X
SP-22.	Preserve, through development agreements, a large open space buffer area around lower end of Dry Creek.		X				X
SP-23.	Provide incentives for property owners to enhance floodplains with a goal of increasing the detention capacity of watersheds (where appropriate) and allowing streams to reclaim their natural course.		X				X
SP-24.	Encourage property owners to reduce the potential for large wildland fires in grasslands and oak woodlands by establishing buffers and managing fuel loads.						X

SECTION C. LOOMIS BASIN

Physical description

The *Loomis Basin* study area, bounded by South Placer cities to the west, Folsom Lake and the American River Canyon to the east, and Highway 193 to the north, is situated in the rolling terrain of the lower Sierra Nevada Foothills (Map 4a). The study area includes one incorporated jurisdiction, the Town of Loomis. Ranging in elevation from 300 to 1000 feet, this area is characterized by low-density rural residential development, horse ranches, and small farming operations. Population centers in this area range from the suburban communities of Granite Bay to the historic farming communities of Penryn and Newcastle. The well-drained Andregg soil that predominates is well suited for fruit orchard crops, which covered this area during the first half of the 20th century (Map 30). The population of the area as of 1999 was approximately 33,000 people.

Following the decline of orchard production in the 1940s and 1950s much of this area returned to native blue oak and valley oak woodland/savannah vegetation (Map 20). As a result, the current oak woodland community is comprised primarily of young, even-aged stands of trees. The rural settlement pattern and subdivision of land in this area has led to a patchwork of seminatural oak woodlands interspersed with rural residential and agricultural (primarily orchard and pasture) land uses (Map 12). The oak woodlands vary widely in their habitat value and are largely lacking in both east-west and north-south connectivity.

Except for the American River basin portion of this area, which drains into Folsom Lake, the Loomis Basin forms the upper Dry Creek watershed, containing the headwaters of Antelope and Clover Valley Creeks, Secret and Miners Ravines, and Cirby and Linda Creeks (Map 17). For the most part, creeks in the Loomis Basin have retained a multi-layer riparian zone, with gaps in connectivity more prevalent in the southern part of the basin, near the Sacramento County border (Map 18). Residential and agricultural land uses have reduced the width of the riparian zone and increased surface runoff through urbanization of the watersheds.

Trends

To a large extent, the Loomis Basin is developed at or near general plan buildout densities, with little additional public works infrastructure or public support for more intensive land uses (Map 8). The greatest percentage of growth will occur in the Town of Loomis which is expected to grow from a population of 5,650 in 1990 to 10,556 in 2022. There are several large developable parcels remaining, however, primarily to the south in the Granite Bay area, but also in other areas. Within the Folsom Lake basin, new development is restricted and much of this land is publicly owned, in association with the Folsom Lake State Recreation Area. Throughout the study area, new development will displace some oak woodlands, some seasonal grasslands and a small amount of agricultural lands.

Recreational opportunities exist in a number of areas within the study area including Folsom Lake and the Loomis Regional Park. Interest in trail development for cycling, hiking and equestrian use has been evident for many years (Map 21). The demand for trails and other types

of recreation will increase as the study area population increases but also as the *South Placer Urban* study area increases as well. It is assumed that urban residents will seek opportunities in more rural areas to recreate. The proximity of this study area to urban land uses will make it popular for residents of those areas if recreational opportunities are provided.

Stressors and Conflicts

Agriculture - Agricultural lands in the northern Loomis Basin, primarily citrus crops, deciduous orchards and pasture, have been greatly reduced from their original extent, primarily due to market forces and disease, rather than urban encroachment. Rural residential growth largely occurred after the decline of orchard production as farms were subdivided into smaller and smaller units of land. Additional conflicts will be generated as the area continues to grow. A mix of rural residential and small farming uses is interwoven throughout the study area. Different expectations about rural lifestyles and the perceived nuisance of farming operations will continue to cause conflicts in the area for agricultural producers.

Biological Resources - The current patchwork of agricultural, residential and natural areas provide for a variety of potential conflicts and competition for space. The oak woodlands that have taken the place of the historical orchard industry are often fragmented and degraded by surrounding residential and agricultural activities. Preserving and promoting small-scale agriculture while simultaneously preserving and enhancing oak woodlands may be challenging.

Controlling high temperatures, erosion and sedimentation of the tributaries of Dry Creek will be important to aquatic species including sensitive salmonids. Water quality may be further impacted primarily through non-point discharges (i.e., storm drains) associated with urban runoff. The introduction of residential uses will further erode the integrity of the riparian corridors even though displacement may not occur to any great extent. Public use of these areas will increase, and the introduction of domesticated pets will result in increased predation pressures on native wildlife, particularly ground-nesting birds and all terrestrial vertebrates. Other conditions associated with residential land use, such as light and noise, will further disrupt wildlife along these corridors.

The study area also includes a portion of the Sierra College Ridge, a long ridgeline extending from Rocklin to Roseville along Sierra College Blvd. The ridge is comprised of Mehrten Formation volcanic mudflow material that supports a unique type of vernal pool (see Map 19). Much of the Mehrten vernal pools have been lost in the last 10 years to suburban development. The remaining vernal pools have no protection at this time.

Outdoor Recreation – A lack of funding to meet anticipated recreational demands may result in limited services being available to serve a growing population. New recreational development in the area is limited to that which is provided as mitigation for new development. The single largest existing recreational opportunity is the Folsom Lake State Recreation area with vehicular access at Granite Bay and Rattlesnake Bar. The County also operates the Loomis Regional Park near the Town of Loomis.

Cultural Resources – A cultural/historical survey of this area was conducted in the 1990s. Numerous historical and cultural sites are evident throughout the region, most of them associated with the early days of agriculture in the County. Many structures and sites have been lost or damaged over the years. Paleontological resources are also known to exist in this area of the county and may be threatened by grading activities associated with new development. It is anticipated that the region will continue to lose important historical/cultural sites unless market forces result in renovation activities or funding can be made available.

Scenic Resources/Urban Separators – The scenic resources of this area can be characterized by the pastoral setting of a rural residential landscape intermixed with open pasture, small farms, riparian areas, and oak woodlands. Other scenic areas are the Folsom Lake State Recreation area and the small town character of Loomis. There are also many ridgelines and hills interspersed throughout the area that contribute to the visual quality of the area. Although most of these hills and ridges have some level of development, an open character continues to dominate the landscape. It is not anticipated that the growth and development occurring in this study area, will result in dramatic changes to the landscape. The one exception is the potential for changes to the area known as Boulder Ridge along the edge of the study area near Penryn. This dominant ridgeline is designated for 1 dwelling unit/acre in the Placer County General Plan (Map 8). There is some potential for ridgeline development to be evident if a project is approved and development commences.

The deliberate creation of urban separators is not a priority in this area because of the limited conflicts that exist. Projected buildout of this area will not result in a large regional interface between urban and agricultural land uses. The Loomis Basin presently serves as an urban separator between the urban areas of Rocklin/Roseville/Granite Bay and Auburn to the north.

Public Safety – Public safety stressors in this area are primarily associated with flooding events on tributaries of Dry Creek. Continued encroachment with new development, particularly on the smaller tributaries where less is known about hydrological conditions, will result in additional flooding impacts (see Map 17). Existing conditions already result in significant flooding events, particularly along Miners Ravine in Granite Bay.

Wildland fires are also a potential threat to individuals and property. Although the region has full fire service capabilities through local fire departments and CDF, the amount of woodland habitat intermixed with residential land uses has the potential for significant fire events (see Map 24). Continued encroachment in to wooded areas, particularly those that are access-limited, will exacerbate the potential for impacts.

Placer Legacy Program Opportunities

Acquisition/Easement

Opportunities for large-scale acquisitions and conservation easements in the Loomis Basin are limited due to the high level of subdivision activity that has already occurred. However, if willing sellers are present, key easement acquisitions or easements may help preserve the remaining oak woodland matrix and/or preserve high quality riparian habitat. Easements and

some homeowner's association common areas are presently used along the riparian corridors and in a few instances the fee-title acquisition of these corridors has occurred. Such easements are typically required as a part of the discretionary approval for a land development project.

Agency Coordination

Because several large parcels in this area are adjacent to the Folsom Lake State Recreation Area, opportunities may exist to facilitate the purchase of some of these properties by the State Parks Department, perhaps using Proposition 12 Park Bond funds. This would further both recreation and oak woodland conservation objectives.

Working with the Dry Creek Coordinated Resource Management Plan group (CRMP), Placer Legacy will also identify potential creek restoration projects, primarily along Secret and Miners Ravines, to enhance habitat for anadromous fish and improve water quality.

Education/Incentives

To help improve wildlife habitat and migration throughout the oak woodland belt and maintain watershed integrity, Placer Legacy will explore non-regulatory mechanisms to encourage landowners to retain oak trees and herbaceous understory plants, and exclude livestock grazing from sensitive areas. To promote oak regeneration and prevent wildfires, controlled burn programs could be established on larger properties with the assistance of the California Department of Forestry and Fire Protection (CDF).

In the agricultural zones near Penryn and Newcastle, the Placer Legacy program will work with the County Agricultural Commission, the Farm Bureau and local growers' organizations to create new markets for Placer County farm products and bring new farm operations to Placer County. Use of the Williamson Act program may provide additional incentives for new agricultural operations.

Table 4-3. Loomis Basin Implementation Measures

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
LB-1.	Work with farmers and ranchers to protect agricultural lands outside of designated development areas through the use of conservation easements.	X			X	X	
LB-2.	Support the County's right-to-farm ordinance provisions.	X			X		
LB-3.	Promote sales of locally grown produce and help create additional markets for agriculture.	X			X		
LB-4.	Provide resources to assist farmers and ranchers with tax, estate and easement planning.	X			X		
LB-5.	Purchase conservation easements to improve the connectivity and quality of stream zone vegetation to improve wildlife habitat and water quality.		X			X	X
LB-6.	Preserve large oak woodland patches along Folsom Lake, primarily through coordination with the State Parks and Recreation Department		X	X		X	
LB-7.	Provide incentives for property owners to enhance fragmented and degraded oak woodlands and riparian zones throughout the rural residential landscape.		X			X	X
LB-8.	Work with property owners to remove or modify barriers to anadromous fish passage along Miners Ravine and Secret Ravine. Develop joint projects with the Dry Creek CRMP team.		X				
LB-9.	Create a large regional park near the south Placer Urban area consistent with adjacent agricultural uses (not necessarily in this study area).		X	X			
LB-10.	Create regional trail connections and develop new regional trails, consistent with adjacent agricultural and residential uses.			X			
LB-11.	Improve trail connections between Folsom Lake and Dry Creek and its major tributaries.			X			
LB-12.	Work with the State Parks and Recreation Department to create new non-motorized recreation opportunities around Folsom Lake.			X			

Table 4-3 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
LB-13.	Create nature centers and interpretive trails to educate the public about creeks, oak woodlands and grasslands.	X		X			
LB-14.	Provide discretionary funds to protect historical and cultural resources.				X		
LB-15.	Identify a location for a regional center recognizing and celebrating the agriculture, history and traditions of Placer County.	X			X		
LB-16.	Work with community organizations to identify and protect key parcels along the Lincoln Highway.				X	X	
LB-17.	Identify and protect important historic orchards and Penryn palm trees.				X		
LB-18.	Identify strategic opportunities to create green areas between urban, rural residential and agricultural uses.					X	
LB-19.	Work with the County, cities and proposed new development along urban edges to create permanent buffers or separators between incompatible uses.	X	X			X	
LB-20.	Protect scenic vistas and ridgelines in the lower foothills.					X	
LB-21.	Identify and protect scenic corridors including Auburn-Folsom Road, Sierra College Blvd., Indian Hill Road, and Interstate 80.					X	
LB-22.	Encourage property owners to reduce the potential for large wildland fires in grasslands and oak woodlands by establishing buffers and managing fuel loads.		X				X
LB-23.	Work with property owners to enhance flood plains by increasing retention capacity and allowing streams to reclaim their natural course.		X				X

SECTION D. SHERIDAN/GARDEN BAR

Physical description

The *Sheridan/Garden Bar* study area, bounded by the Nevada County line (Bear River) to the north, Highway 65 to the west, South Placer Cities and the Loomis Basin to the south, and the greater Auburn area to the east, spans the Great Valley and Sierra Nevada Foothill ecoregions, ranging in elevation from 0 to 1000 feet. This area, sparsely-populated and relatively isolated from the rapidly urbanizing areas of South Placer, is dominated by rangeland and wildlands but also contains the County's largest area of deciduous orchards along the lower Bear River. The area also produces citrus, grain, rice and hay crops in the fertile floodplain of lower Coon Creek (Map 12).

Blue oak woodlands, interspersed with patches of canyon and interior live oak in canyons and depressions, occur naturally above 300 feet. Much of this woodland has grown back within the last 50 years, after the retreat of mining operations and the cessation of fuel wood harvesting (Map 20). Due to large parcel sizes, particularly in the Garden Bar area along the Nevada County border, oak woodlands are relatively intact and unfragmented, presumably facilitating wildlife movement and migration. Valley grassland occurs at lower elevations, with vernal pools forming on hardpan soils (Map 19). Although this area has a long grazing history, most of its grassland terrain has not been severely disturbed by discing or other intensive soil manipulation. Vernal pool complexes tend to be fragmented, but less disturbed than in the *Agricultural Valley* area.

This area is bisected by Coon Creek and contains portions of the Bear River watershed (including the river itself) to the north and the Auburn Ravine watershed to the south. The lower Bear River historically contained the most significant riparian floodplain forest in the County, but much has been replaced by agricultural and mining activities. Nevertheless, large tracts of Valley Oak and riparian woodlands still exist along certain stretches of the river. The Bear River is impounded at the Camp Far West Reservoir by the South Sutter Irrigation District for agricultural water deliveries. This impoundment prevents anadramous fish from spawning upstream. Coon Creek is also sparsely vegetated along its lower reaches, where the floodplain's prime soils have been farmed and grazed. The upper reaches of the Bear River and Coon Creek exhibit more natural conditions, with relatively intact riparian zones and largely undeveloped upland habitat (Maps 18 and 20).

Trends

The *Sheridan/Garden Bar* study area is dominated by agricultural and rural residential land uses. One small urban area exists in the unincorporated community of Sheridan where residential, commercial and industrial land uses are present. Sheridan was originally established in the late 1800s along a rail line serving the region. Although a community plan was prepared in 1976 that would allow for a significant amount of new development around the townsite, infrastructure constraints for public sewer and water limit the potential to accommodate the urban levels of development contemplated by the community plan. Consequently, no growth is occurring. Within the foreseeable future, development in the town will continue to be

constrained, as there are no capital improvement or finance plans being developed to design and fund new infrastructure for the town. The nearest available sewage treatment opportunity is in the City of Lincoln to the southeast.

In addition to rice, pasture, orchards and poultry (Map 12), the growing of wine grapes appears to be a small but growing segment of the agricultural economy in this area. In general, the availability of surface water delivery enhances productivity levels and provides greater future security for agriculture.

Stressors and Conflicts

Agriculture - Most of this area is zoned "Farm" with minimum parcel sizes as large as 160 acres in the Garden Bar area (Map 8). Thus subdivision potential is generally low under current general plan designations. Outside of the townsite of Sheridan, it is somewhat higher, with 10-and 20-acre parcel sizes. Although land speculation in this area does not approach the intensity seen in the area west of the Cities of Roseville and Lincoln, non-renewal and expiration of Williamson Act contracts are fairly high throughout. This indicates an interest in rural residential subdivisions, some level of expectation about future development opportunities, or a lack of confidence in the viability of the agricultural land over time.

In 2000 a large aggregate mining operation is removing and processing sand and gravel from the Bear River to the west of Camp Far West Reservoir. . A large source of aggregate has also been identified near Coon Creek east of Highway 65. If the Coon Creek aggregate source is developed, the extraction of the resource will disrupt farming activities onsite and potentially impact adjoining operations. It will also displace a large amount of prime farmland. Expanded operations on the Bear River may also impact agricultural operations.

Biological Resources – As mentioned above, a large source of aggregate has been identified within the floodplain of Coon Creek east of Highway 65 and is currently being evaluated for extraction and production. If this material is removed, a number of conflicts may be introduced on anadromous fish, wetlands, riparian habitat, and grasslands. Vernal pool grasslands and oak woodlands are probably the most threatened open space resources in this area.

Anadromous fish (i.e., salmon and steelhead) are also known to exist within the Coon Creek watershed, although the numbers are quite low compared to historical estimates. Several factors contribute to the decline of these species, but locally, the lack of quality habitat and fish passage constraints are the most obvious. Lower Coon Creek also has significant sedimentation problems, which result in the loss of valuable anadromous fish habitat. Sediment loading of the stream will be evaluated in 2000/2001 through efforts sponsored by CALFED Bay-Delta Program. Because the sediment loading is expected to be associated with contributions from a large region, it may be difficult to implement a successful restoration plan without a region-wide cooperative effort.

Outdoor Recreation – There are few if any stressors or conflicts associated with outdoor recreation. Even though no park and recreation facilities are provided in the area, demand for

such facilities is low compared to the more urban areas of the county. Camp Far West Reservoir provides some seasonal recreation and the Spenceville Wildlife Area, in Yuba County, also provides public open space that is reasonably close to this area (see Map 21a).

Cultural Resources – Cultural resources are scattered throughout the region (Map 22). They include historical resources from mining and early farming as well as important Native American resources. The degree to which growth and development will impact these resources is largely unknown because impacts occur without the general knowledge of local government. There are some well-known historical structures in the area, including a commercial building from the 1880s in Sheridan. There is a constant threat that these resources will be lost to land development or a lack of repair/maintenance.

Scenic Resources/Urban Separators – The study area is one of the most scenic areas of the County due to its pastoral setting, a heavily wooded landscape intermixed with open grasslands, farming operations, and rolling terrain bordered by the foothills of the Sierra Nevada. Rural residential land uses are evident throughout the area but do not significantly detract from the visual quality of the region, due primarily to the predominance of large parcel sizes. Buildout of this area will continue to introduce residential land uses but the low-density designations of the General Plan will not result in a significant change over time.

Public Safety - Public safety stressors in this area are primarily associated with flooding events on Coon Creek and its tributaries. Continued encroachment with new development, particularly on the smaller tributaries where less information is known about hydrological conditions, will result in additional flooding impacts. The continued sedimentation of Coon Creek (i.e., aggradation of the streambed) may also contribute to flooding events.

Wildland fires are also a potential threat to individuals and property. Although the region has volunteer fire service capabilities through local fire departments and CDF, the amount of woodland habitat intermixed with residential land uses has the potential for significant fire events (see Map 21). Continued encroachment into wooded areas, especially where access is restricted, will exacerbate the potential for impacts. Grassland fires are also a common occurrence in the study area.

Placer Legacy Program Opportunities

Acquisition/Easement

Given the large parcel sizes and consequent limits on urban/suburban subdivision activities in this area, as well as lack of infrastructure for development, open space and agricultural lands should be relatively inexpensive (compared to land values for example in the South Placer study area) and easy to acquire if sufficient willing sellers can be identified. The majority of the land management activities would be associated with the purchase of conservation easements. Due to lower land values, vernal pool grasslands in this area would be protected through the use of conservation easements and some fee title acquisition, given the intensive monitoring that will be required under an HCP/NCCP. Riparian conservation and enhancement, as well as oak woodland preservation, could be achieved through conservation easements, though the

establishment of a regional park would require outright purchase of land. Parking facilities, picnic areas, restrooms and trails would also need to be established.

Agency Coordination

In the valley portion of this area, farmers may be eligible for the Natural Resource Conservation Service wetland reserve program (WRP) or floodplain easements administered by the same agency. Placer County will work with landowners who have already expressed an interest in the WRP, possibly acting as a sponsor to boost their funding priority. The County will also work with independent land trusts, such as the American Farmland Trust and the California Rangeland Trust, to identify landowners interested in selling agricultural easements.

Working with the Auburn Ravine/Coon Creek CRMP, the Placer Legacy Program will help identify and implement creek restoration projects along Coon Creek, to enhance habitat for anadromous fish and to improve water quality. Projects may be as simple as the installation of fish screens and the construction of small fish ladders or as ambitious as developing fish passage improvements around the Camp Far West Reservoir dam.

Along the Nevada County line, Placer County will attempt to coordinate with Nevada County's emerging open space conservation program to protect adjacent large areas of blue oak and interior live oak around the Bear River.

Education/Incentives

The Placer Legacy program will work with the County Agricultural Commission, the Farm Bureau, and local growers' organizations to create new markets for Placer County farm products, and bring new farm operations to Placer County. The Placer Legacy Program may also work with local farm organizations, tourism boards, economic development boards and other organizations to promote agro-tourism in the area, and provide financial assistance (through grants and direct funding) to PlacerGrown, the Foothills Farmers Market Association, and other similar local programs.

In addition, educational materials can be developed describing appropriate land stewardship for riparian areas, vernal pool complexes and blue oak woodlands communities.

Table 4-4. Sheridan/Garden Bar Implementation Measures

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
SG-1.	Work with farmers and ranchers to protect agricultural lands outside of designated development areas through the use of conservation easements and by promoting the Williamson Act.	X			X	X	
SG-2.	Promote sales of locally grown produce and help create additional markets for agriculture.	X			X		
SG-3.	Coordinate with PCWA, NID, and South Sutter Irrigation District to ensure that water is available for agriculture as well as for habitat conservation and restoration. One option is to initiate a water forum discussion with the area's stakeholders.	X					
SG-4.	Provide resources to assist farmers and ranchers with tax, estate and easement planning.	X					
SG-5.	Prioritize the acquisition of agricultural property that contains multiple conservation values.	X	X	X	X	X	X
SG-6.	Preserve, through a combination of conservation easements and fee title acquisition, large areas of blue oak and interior live oak woodland in the upper Bear River and/or Coon Creek watersheds.		X	X		X	
SG-7.	Protect extensive areas of grazing lands through conservation easements.	X	X			X	
SG-8.	Enhance fragmented and degraded oak woodlands and riparian zones through property owner incentives and education.		X			X	
SG-9.	Acquire and manage vernal pool grasslands in large complexes near Sheridan.	X	X			X	
SG-10.	Encourage the use of rice decomposition water to improve waterfowl habitat.		X				
SG-11.	Preserve high quality riparian habitat, through conservation easements and fee title acquisition, along Coon Creek and the Bear River.		X			X	

Table 4-4 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
SG-12.	Work with property owners to enhance stream channels and remove or modify barriers to anadromous fish passage along Auburn Ravine and Coon Creek. Coordinate efforts with the Auburn Ravine/Coon Creek CRMP organization.		X				
SG-13.	Purchase conservation easements to improve the connectivity and quality of stream zone vegetation on lower Coon Creek. Coordinate efforts with the Auburn Ravine/Coon Creek CRMP organization.		X				
SG-14.	Provide discretionary funds to protect historical and cultural resources.				X		
SG-15.	Identify a location for a regional center recognizing and celebrating the agriculture, history and traditions of Placer County.	X			X		
SG-16.	Work with the City of Lincoln to create permanent buffers or separators between incompatible agricultural and urban land uses.	X				X	
SG-17.	Identify and protect vistas in the lower foothills north of Lincoln and east of Rocklin.		X			X	
SG-18.	Identify and protect vistas of the Sutter Buttes, valley floor and coastal range.		X			X	
SG-19.	Create nature centers and interpretive trails to educate the public about agricultural operations, oak woodlands, vernal pools, creeks and grasslands.		X	X			
SG-20.	Work with landowners to ensure that private recreation facilities (e.g., hunting clubs and public equestrian facilities) continue to be a viable land use.			X			
SG-21.	Work with property owners to enhance floodplains by increasing retention capacity and allowing streams to reclaim their natural courses.		X			X	X

SECTION E. AUBURN/BOWMAN

Physical description

The *Auburn/Bowman* study area, which is delineated by the boundaries of the community plan, includes the City of Auburn, as well as the communities of North Auburn, Bowman, and Christian Valley (Map 4). This area is in the heart of the Sierra Nevada Foothill region, situated in rolling hills between 1000 and 1800 feet elevation, and characterized by a transition zone from oak woodlands to conifers (Map 20). Auburn, the County seat, with a long history of human settlement, is a major urban center in the county. At the same time, it preserves a rural character, with rings of rural residential land uses around its urban core. Its location at the crossroads of I-80 and Highway 49 has also influenced its development, with traveler/tourist facilities featured prominently.

Although it contains primarily shallow, silt-dominated Auburn soils (create soil map), this area nevertheless has an important agricultural history, with orchards and specialty crops still thriving on small acreages, primarily along Mt. Vernon Road, west of Auburn (Map 12). Many former orchards have returned to a seminatural, blue oak woodland community, with canyon and interior live oak occurring in ravines and canyons, and foothill pine becoming more predominant at higher elevations. For the most part, these oak woodlands are highly fragmented and juxtaposed with other land uses, such as rural ranchettes, hobby farms and horse ranches. While connectivity and wildlife movement potential may exist, the quality of the habitat to sustain a diversity of plants and animals is presumed to be low. These woodlands also tend to be dominated by younger, even-age stands, although small patches of larger oaks do occur, primarily north of Dry Creek Road and southwest of Auburn, where they are mixed with foothill pine (Map 20).

This area contains tributaries of Coon Creek (including Dry Creek and Orr Creek) and Auburn Ravine (Map 17). The majority of the study area drains into one of these two watersheds. The southeast portion of Auburn is part of the American River drainage basin, while the Auburn Valley near Bell Road and Lone Star Road drains into the Bear. Auburn Ravine has been channelized and diverted through this urban area, while the Dry Creek watershed remains somewhat natural, with high canopy cover and structural diversity (Map 18).

Trends

The Auburn/Bowman area will continue to grow and expand due to the growth potential available on adopted general plans, the availability of infrastructure and a strong market place for residential and commercial land uses. The cities and County general plans allow for urban development, primarily in the southern part of the City of Auburn, in North Auburn along the Highway 49 corridor, and to a lesser extent in Christian Valley (Map 8). Urban/suburban and rural residential subdivision potential throughout the City and surrounding unincorporated area is high, especially in the rural residential zone west of Highway 49, and west and south of Auburn-Folsom Road along Baltimore Ravine in the south (Map 8).

SACOG projects that the region will grow from a population of approximately 37,000 persons in 1990 to 67,000 persons in 2022. Contrary to trends elsewhere in the county, most of this growth will occur in the unincorporated area of north Auburn where urban and suburban land use designations are noted on the community plan. (The City of Auburn will grow by 7,000 persons between 1990 and 2022 compared to the unincorporated increment of 37,000 persons for the same time frame).

Stressors and Conflicts

Agriculture – Auburn was once a significant contributor to Placer County's agricultural economy, particularly during the peak of orchard production in the early 20th century. Fruits grown from the foothills of Placer County were distributed throughout the United States from rail distribution points in the region. With the decline of production mid-century due to disease and competition with the establishment of productive Central Valley farms, the area began to be converted to rural residential land uses. The County's General Plan in 1967 recognized this change and accommodated it by allowing for land uses typically in a range of one dwelling unit per 2.3 to 10 acres. As lands subdivided, fragmentation occurred and the viability of land to produce agricultural products at a competitive level diminished. The increased occupancy of land for residential purposes created additional land use conflicts with ongoing agricultural operations. Over the course of 40 years or so, the area was essentially converted from an area dominated by agriculture to a mix of open space, agriculture, rural residential and urban land uses evident today.

Agricultural production is still viable in the area and is evident throughout (Map 12). Most of the farming represents a second source of income or is for hobby purposes. The emergence of local farmers' markets, the continued availability of agricultural surface water and the productivity of the area's soils will insure that farming operations continue to exist. In fact, the trend appears to point to a reemergence of agriculture in the foothills, though at a smaller scale than that seen in the past. If agricultural activities do increase over time, the conflicts between rural residential and agricultural lands will also increase.

Biological Resources - The greater Auburn area has experienced rapid growth in recent years, though at a slower pace than in the *South Placer Urban* study area. Most threatened by new growth and fragmentation by subdivision activity is the oak woodland community, which is already highly fragmented, and faces further degradation and loss of connectivity with additional urbanization (Map 20). Creekside vegetation has also been significantly reduced. Auburn Ravine, once the major riparian corridor through the City of Auburn, is largely unknown to residents because of its channelization and, in some cases, elimination (i.e., piped under a parking lot in a commercial center and under Highway 49). Encroachment upon riparian zones in the upper Auburn Ravine and Coon Creek watersheds, in both urban and rural residential portions of unincorporated North Auburn, has also occurred (Map 18). The extent to which farming and rural residential uses have altered the riparian zone is largely unknown due to a lack of information about resource conditions on these properties.

Outdoor Recreation – Recreational facilities and services is provided by the Auburn Recreation District for this area. ARD provides recreational facilities for the incorporated and unincorporated areas. Available funding is limited and the ability to find additional funding is difficult. Recently, the district was initially successful at establishing a Lighting and Landscape District to raise revenues for new capital facilities. A recall campaign was launched and the funding source was subsequently eliminated. If the population continues to grow at a rapid pace and parklands cannot be acquired and developed to keep pace with demand, the need for adequate services may be threatened.

The Auburn State Recreation Area at the confluence of the north and middle forks of the American River provides an alternative form of recreation for study area residents. This region is located in the *American River Canyon* study area and is discussed in more detail there.

Cultural Resources – The Auburn area probably contains the single largest assemblage of historical resources in Placer County (Map 22). The County courthouse is arguably the most obvious and prominent historical structure in the county. Throughout the City of Auburn there are historical homes and commercial properties dating back as far as the 1860s when permanent housing and commercial enterprises began to emerge in the area as the economy began to stabilize.

As in many other areas, funds to protect these historical resources are limited. The pressure to remove old buildings to construct more efficient and modern buildings continues. Numerous older buildings have been lost to demolition associated with redevelopment activities or elimination of unsafe structures. The County does not have regulatory cultural resource protection ordinance. The majority of protection activities are associated with the processing of environmental impact documentation pursuant to the California Environmental Quality Act for discretionary projects. The City of Auburn, provides degree of limited protection for historical resources. Because of market forces, however, many of the older homes and commercial areas are being maintained and occupied.

The area contains important Native American resources as well. Key areas are often associated with the riparian zones where collection and production of food was common. A complete inventory of Native American resources is not available, and typically such resources are not identified by local government until a discretionary land use entitlement is proposed.

Scenic Resources/Urban Separators – The scenic character of the area is associated with many unique features, including the pastoral rural residential and farming landscape of the foothills, views of the American River canyon and the Sierra Nevada range, and various architectural features. As growth continues in the area, impacts to these resources will occur, although to a lesser extent than in the *South Placer Urban* study area to the south.

Urban separators are largely present and established in the area today. The developed urban areas of the City of Auburn and unincorporated north Auburn are surrounded by either the canyon lands of the American River Canyon to the east or by rural residential and agricultural land uses to the north, west and south (Map 8). The retention of these low-density land uses

around the urban core, particularly south of Auburn, will ensure that the Auburn area is permanently separated from other urban areas.

Public Safety – Public safety concerns are largely associated with fires, particularly those initialed within the American River Canyon. Residential neighborhoods along the ridge above the south-facing slope of the canyon are in an extremely high fire hazard area according the California Department of Forestry and Fire Protection (Map 24). There are many homes in this neighborhood, and numerous canyon fires have occurred over the years. Rural residential neighborhoods north and west of Auburn are also at risk, particularly where fuel load accumulations have built up over the years.

Flooding impacts tend to be localized, unlike in western Placer County, where flooding hazards can be severe (Map 17).

Placer Legacy Program Opportunities

Acquisition/Easement

Except along the Bear River, opportunities to preserve large areas of oak woodland in the Auburn/Bowman area are limited, due to the high level of parcel fragmentation that has already occurred. However, in areas where trail connectivity or trailhead development can be provided, particularly adjacent to the Auburn State Recreation Area, Placer Legacy may make small, strategic acquisitions, or purchase trail easements. Other multiple benefits possibly provided by smaller parcels include the protection of scenic corridors, community separators, high fire risk areas, and high quality riparian corridors.

Agency Coordination

Along the Nevada County line, Placer County will attempt to coordinate with Nevada County's emerging open space program to protect adjacent large areas of blue oak and interior live oak around the Bear River. To the extent that it is locally applicable, the development of an HCP/NCCP for the study area will require the coordination of the local government and state and federal regulatory agencies. The Placer Legacy Program will also coordinate with the Bureau of Reclamation and/or the State Parks Department and a local trail advisory group to identify opportunities for developing trail connections and/or trailheads associated with the Auburn State Recreation Area.

Education/Incentives

Placer Legacy will work with the County Agricultural Commission, the Farm Bureau and local growers' organizations to create new markets for Placer County farm products and bring new farm operations to Placer County. Placer Legacy may also work with local farm organizations, tourism boards, economic development boards, and other organizations to promote agro-tourism in the area, and provide financial assistance (through grants and direct funding) to PlacerGrown, the Foothills Farmers Market Association, and other similar local programs.

Placer Legacy can work with the Placer Nature Center in Christian Valley to expand the curriculum being provided. The Placer Nature Center is one of the few locations where environmental education is provided outside of the classroom in Placer County.

Table 4-5. Auburn/Bowman Implementation Measures

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
AB-1.	Promote sales of locally grown produce and help create additional local markets for agriculture by financially supporting farmers' markets and agro-tourism programs.	X			X	X	
AB-2.	Work with farmers in the foothills to protect agricultural lands outside of designated development areas by promoting the Williamson Act and use of conservation easements.	X				X	
AB-3.	Identify a location for a regional center recognizing and celebrating the agricultural tradition of Placer County (not necessarily in this study area).	X			X	X	
AB-4.	Protect high quality riparian habitat through conservation easements.		X			X	
AB-5.	Work with property owners and the Auburn Ravine/Coon Creek CRMP to restore habitat for trout, salmon, steelhead and amphibians in Auburn Ravine and Coon Creek.		X			X	
AB-6.	Protect expansive areas of blue oak and interior live oak woodland habitat along the Bear River.		X	X		X	
AB-7.	Provide incentives and information for property owners to enhance fragmented and degraded oak woodlands and riparian throughout the area.		X				
AB-8.	Work with property owners and the Auburn Ravine/Coon Creek CRMP to improve the connectivity and quality of foothill stream zone vegetation for wildlife habitat and water quality.		X				X
AB-9.	Work with willing sellers to identify portions of Baltimore Ravine to develop as a recreational resource and biological resource conservation area.		X	X		X	

Table 4-5 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
AB-10.	Support the Placer Nature Center and interpretive trails to educate the public about blue oak woodlands and other foothill habitats.		X	X			
AB-11.	Work with willing sellers and the Auburn Recreation District to establish trailheads, create regional trail connections, and build new regional trails.			X			
AB-12.	Provide discretionary funds to protect historical and cultural resources in the Auburn area.				X	X	
AB-13.	Identify important vista points and scenic corridors including Indian Hill Road, Baltimore Ravine, Bowman views of the Sierra Nevada, the American River corridor, Bell Road, I-80, and local views of historic architecture. If necessary, protect these areas through acquisition or easements.				X	X	
AB-14.	Work with the City of Auburn to select strategic opportunities to create greenbelts around urban areas (e.g., Baltimore Ravine).	X	X	X		X	
AB-15.	Work with the County, City of Auburn and proposed new development along urban edges to create permanent buffers or separators between urban and agricultural land uses.	X	X			X	
AB-16.	Maintain community separators north and south of Auburn through selected acquisitions and/or conservation easements.	X	X			X	
AB-17.	Work with property owners to reduce flood potential by increasing watershed retention in the Auburn Ravine and Coon Creek watersheds.						X
AB-18.	Protect high fire hazard areas from development through the project planning process.						X
AB-19.	Work in partnership with CDF and local CRMP groups to reduce wildland fire risks throughout the rural residential area.		X				X
AB-20.	Acquire fee title or conservation easements on high fire hazard areas with multiple open space values.		X	X		X	X

SECTION F. AMERICAN RIVER CANYON

Physical description

The *American River Canyon* study area, which consists of the Placer County portion of the Auburn State Recreation Area, is an unique and iconic feature in Placer County, with its steep canyons, awe-inspiring rapids and scenic beauty. The discovery of gold at Sutter's Mill on the South Fork of the American River in El Dorado County helped change the course of history in the United States. One hundred fifty years after the gold rush days that made it famous, the American River is now considered as a recreation magnet for a wide variety of outdoor enthusiasts, including cyclists, horseback riders, hikers, rafters, kayakers, off-road vehicle users, and bathers, as well as recreational gold miners (Map 17).

The American River is dammed downstream of the confluence of the North and South Forks at Folsom Lake and at Nimbus Dam. Consequently, the anadromous fish that once spawned in its gravel beds are now excluded. Placer County contains three reservoir dams upstream of the confluence, along the middle fork of the American River: Hell Hole, French Meadows and Oxbow Reservoirs. (The first two are not contained within this study area.) Flows along the north fork, obstructed only by the Lake Clementine debris dam/spillway just north of the confluence, are still largely natural, though only 38.3 miles of the upper north fork (outside of this study area) has earned a wild and scenic designation from the National Park Service. The middle fork, though its flows are regulated, is a candidate for the wild and scenic designation, currently under study.

Vegetation in this area varies largely according to slope, aspect and elevation, with chamise and mixed chaparral occurring on south-facing slopes, douglas-fir and ponderosa pine on north-facing slopes, interior and canyon live oak on steep slopes, and black oak on flat ridge top mesas. Blue oak is also found throughout this area, though it constitutes the upper end of this species' elevation range. The American River Canyon area serves as a northern range limit for chamise chaparral (Map 15).

Trends

Most of this land is publicly owned, purchased by the Bureau of Reclamation (BOR) for the proposed Auburn Dam project and is now managed by the State of California as the Auburn State Recreation Area (ASRA) (Map 10). The ASRA also includes private in-holdings that were condemned for the dam project but never purchased, as well as BLM-owned land. Thus almost the entire area is presently protected from development, despite the urban land use designations featured in the general plan, which are carried over from the time of the dam project.

The American River Canyon will continue to serve as a valuable recreational resource for the local population as well as outside individuals and organizations (Map 21). It is expected that the popularity of the canyon area for a wide range of users will grow as the population of nearby population centers continues to grow. Rural residential encroachment into the American River watershed will also continue as roads and utilities are expanded out from existing populated centers to the canyon edge.

Stressors and Conflicts

Agriculture – No agricultural land uses are present in the area although they may have existed in the past.

Biological Resources – The potential for conflicts between recreational interests (e.g., mountain biking, off-road vehicle, and equestrian use) and wildlife is already apparent today. As Placer County's human population grows, increased recreational use will further stress the natural communities in the area. The disruption of wildlife foraging and nesting areas, a general diminishment of habitat values, conversion of habitats, increased erosion, and potential wildland fires, are just a few examples of how the popularity of this area impacts its ability to serve as an important wildlife corridor and natural community for a wide diversity of plants an animals.

The Auburn State Recreation Area is the only State Park in California to allow mining and dredging activities within its boundaries. Over the years, mining-related activities have undoubtedly had an impact on the river and natural vegetation communities in this area, though to what extent is uncertain. These activities are not likely to increase in the future, however.

The construction of the Auburn Dam, if it were to occur, would inundate thousands of acres of canyon lands displacing the existing natural communities with seasonally impounded water.

Outdoor Recreation – The greatest potential for conflict is associated with the multiple stakeholder expectations about how the canyon is to be used for outdoor recreation. Numerous conflicts already exist, including cycling versus equestrian interests, off-road vehicle users versus non-motorized recreationists, and those seeking the construction of a multi-purpose dam for lake recreation versus whitewater and river enthusiasts.

Cultural Resources – Historical sites and the remains of past construction activities are evident throughout the study area. Old railroad beds, bridge abutments, and trails are scattered throughout the region. "No Hands Bridge," crossing the north fork of the American River just below its confluence with the middle fork, was once a railroad bridge that is being rehabilitated so that it can become a permanent part of the trail system managed by the State Parks and Recreation Department. (However, it needs to be noted that the current agreement with BOR states that the bridge can be closed to public use at any time, if an Auburn Dam project was to commence.)

The rich diversity and importance of the historical character of the study area is the responsibility of the State Parks Department and the Bureau of Reclamation. The challenge of protecting these resources while allowing public access and use of these lands will continue to be borne by those agencies.

Scenic Resources/Urban Separators – The greatest potential conflict with the scenic quality of the canyon is the area around the dam construction site for the Auburn Dam project. This area has been heavily disturbed due to the initiation of dam construction, including the construction of the foundation. The river is diverted through a tunnel in order to de-water the dam construction

site. Remediation of this site would improve the scenic quality of the area and increase riveroriented recreation opportunities. Other conflicts are associated with ridgeline development and road construction, which also detract from the visual quality of the canyon area.

Urban separator conflicts are not relevant to this study area.

Public Safety – In recent years, numerous wildland fires have erupted from activities occurring within the ASRA. Without proper fuel load management planning, such fires have the potential to be catastrophic to the canyon and to surrounding communities. Flooding is also known to occur, but impacts are limited to inundation of roads, causing temporary road closures.

Placer Legacy Program Opportunities

Acquisition/Easement

Due to the high percentage of public ownership in this area, acquisitions and easements need not be a priority for Placer Legacy. Opportunities to add lands to the present federal holdings may present themselves, and Placer Legacy may play some role in facilitating a transfer of ownership in these areas. Properties containing important riparian and aquatic habitat for special status amphibians (i.e., Foothill yellow-legged frog or California red-legged frog), or relatively uncommon vegetation communities, such as black oak or Chamise chaparral, would be the primary targets for such land transfers.

Agency Coordination

Placer Legacy can work with the land stewardship agencies (Tahoe National Forest, Bureau of Land Management and Bureau of Reclamation) to support the acquisition of high value private inholdings along the river to fill in the ownership gaps and increase access to the area's extensive trail network.

Placer Legacy can also work with the Auburn State Recreation Area as well as the Auburn Recreation District (ARD) and the American River Watershed Group (ARWG) to identify new trail and other recreational opportunities, while protecting sensitive areas.

At present, a portion of the American River south of the confluence of the North and Middle forks is closed to recreational activities because of safety concerns at the Auburn Dam construction site and the diversion of the river through the Auburn tunnel. In 2000 an evaluation was initiated to determine whether or not the tunnel is to be closed and the river restored to its natural course. If the Auburn tunnel is closed, Placer Legacy can play a supportive role in the development of recreational opportunities along the restored river course. Activities such as hiking, cycling and whitewater rafting/kayaking may be reintroduced to the area if the tunnel is closed and restoration has been completed. Coordination with resource agencies, the American River Watershed Group, Protect the American River Canyon (PARC), and other organizations could result in joint venture projects to improve the disturbed areas.

Table 4-6. American River Canyon Implementation Measures

	Table 4-6. American River Canyon In	Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
AR-1.	Coordinate with the Auburn State Recreation Area (ASRA) to preserve and manage for wildlife large expanses of Chamise chaparral, black oak, and other unique vegetation communities.		X			X	
AR-2.	Coordinate with the ASRA to protect and manage aquatic and riparian habitat for special status amphibians. Facilitate acquisition of private lands if necessary.		X				
AR-3.	Work with local, state and federal agencies to protect wildlife corridors in the region that provide connectivity to adjacent areas.		X				
AR-4.	Help facilitate land transfers from private to public lands in areas where the goals of Placer Legacy Program are met.		X	X	X	X	X
AR-5.	Support efforts to rehabilitate disturbed areas in the American River Canyon, including the dam construction site if a firm decision is made to abandon the project.		X			X	
AR-6.	Work with local, state and federal agencies to protect petroglyphs and other native American cultural and archeological resources.				X		
AR-7.	Provide discretionary funds to protect historical and cultural resources, such as bridge abutments, abandoned gold mining sites and Native American sites.				X		
AR-8.	Work with the ASRA to preserve the scenic transportation corridors and ridgelines that contribute to the quality and value of the entire region.					X	
AR-9.	Preserve canyon views from Interstate 80, through acquisition if necessary.					X	
AR-10.	Protect No Hands Bridge as an important cultural, scenic, and recreational resource.			X	X	X	
AR-11.	Work with the ASRA to improve access to and connections within a county-wide trail system, including the Western States Trail, the Stevens' Trail, Stage Coach Trail, and other trails throughout the area.			X			

Table 4-6 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
AR-12.	Provide support and assistance to the ASRA's CanyonKeepers docent program to educate the public about the American River's rich natural and cultural history.		X	X	X		
AR-13.	Work with the ASRA to improve access to rafting and kayaking put-in areas.			X			
AR-14.	Work with the ASRA to re-establish recreational opportunities downstream of the confluence near the dam construction site if the original river course is restored.			X			
AR-15.	Reduce the potential for wildland fires by working with CDF and the ASRA to establish buffers and mange fuel loads.		X				X

SECTION G. FORESTHILL

Physical description

The study area is dominated by the Foresthill Divide, a large ridge separating the middle and north forks of the American River. The Divide is a flat mesa-like feature containing a mix of small townships, rural residential development, public and private timberlands, and steep canyon areas. The area is well suited for timber production and harvest due to the relatively flat character of the area and its productive soils. Population centers include Foresthill, with a current population of approximately 4,000 people, as well as the smaller communities of Yankee Jim's, Todd Valley, Iowa Hill, and Michigan Bluff.

The study area ranges in elevation from 1500 feet in the American River canyon to 4000 feet at the eastern end of the study area boundary. A significant amount of land is owned by federal land stewardship agencies including the Bureau of Land Management and the Bureau of Reclamation. The U.S. Forest Service also manages the Tahoe National Forest, which spills into the eastern end of the study area (Map 10).

There are a variety of natural communities within the study area. The yellow pine coniferous forest belt dominates the area, which contains mostly ponderosa pine and Douglas fir. Black oak is also found along the top of Foresthill divide. In addition, a lesser amount of canyon live oak can be found in canyons and ravines. Older stands of trees are found in and around Shirttail Canyon to the west of the Divide.

Trends

The existing Foresthill Community Plan provides for a significant amount of new rural residential development. In 2000, a new community plan is being prepared which is evaluating the holding capacity for the area. The community planning process may result in a reduction in holding capacity from the existing land use diagram. The ultimate holding capacity will be determined by a number of environmental characteristics, including slope, soil stability, public infrastructure availability, access, wildland fire potential, and suitability of soils for septic systems. The trend within the Foresthill community to reduce holding capacity is opposite from the direction of land use updates occurring elsewhere in the county, where holding capacities are typically increased or held constant.

With or without a reduction in holding capacity, the *Foresthill* study area will see significant changes, since the completion of the Foresthill Road improvement project will improve access to the Divide and shorten commute distances. SACOG estimates that the Foresthill area will experience a population increase from 3,400 people in 1990 to 6,309 in 2022. This represents a rate of growth significantly lower than that expected in urban parts of the County but is nevertheless a significant change for the region.

Stressors and Conflicts

Agriculture – Agricultural production for food products is limited to a few orchard crops and localized hobby farming (Map 6). Christmas tree farms and timber production are the chief agricultural products produced in the study area. Timber production occurs on public lands managed by the U.S. Forest Service and Bureau of Land Management and on small and large private landholdings. Seasonal grazing may occur as well.

The rural residential interface with lands being managed for timber production creates conflicts among landowner expectations, especially on lands managed by the private sector. The rural residential owner may perceive the timberlands as part of an aesthetic landscape. Because the lands may be managed for 40+ years to allow the for a mature and valuable forest crop, such lands inevitably become part of a community's landscape. The harvesting of this resource is often perceived as a loss of visual character for the viewshed. The actual harvesting operation may also create perceived conflicts due to the level of activity associated with such operations.

Biological Resources - The majority of conflicts will be associated with the continued expansion of rural residential land uses in the study area and the resulting fragmentation and replacement of wildlife habitat. Timber harvesting operations and timber management practices (e.g., even-aged stands) will also continue to affect the viability of the natural landscape and may influence the survival of old growth-dependent species such as the California spotted owl, which is known to nest within the study area. An increase in demand for black oak has resulted in this particular hardwood species being logged quickly. The fragmented public/private ownership pattern in forested areas, with varying management practices, may contribute to diminished environmental conditions for plant and animal species, especially mammals with large ranges, such as the Pacific fisher and Pine marten.

Mining operations will also have an impact on aquatic habitats, though at a scale significantly less than that which occurred 100 years ago. Potentially affected species include sensitive amphibians such as the Foothill yellow-legged frog.

Outdoor Recreation - Recreational opportunities will continue to be in high demand in the area with limited revenues available to meet anticipated demands. Users from outside of the study area generate much of the demand. Hiking and river recreation are among the more popular activities. River and/or public land access often conflicts with private ownership on lands adjacent to access points. Many of the roads in this area are privately owned and maintained and are generally not available for public use.

Cultural Resources – Historical resources are generally associated with the town site of Foresthill, the smaller towns scattered throughout the study area and historical mining and timber harvesting sites. The quality of these resources is variable throughout the region. In the town sites, many of the historical structures are occupied and maintained as residences and commercial businesses. Similar to other areas of the County, such structures and sites will continue to be lost unless market forces and/or direct financial assistance are introduced to insure that these resources are protected over time.

Scenic Resources/Urban Separators – Stressors upon the scenic quality of the area are chiefly associated with the conversion or modification of natural communities through continued residential development and impacts associated with timber extraction. See the above discussion regarding timber harvest impacts on scenic resources.

Urban separators are not a relevant consideration for this plan area. The town of Foresthill is surrounded by rural residential lands and timberlands and is effectively separated from the nearest urban community - Auburn - by 12 miles of land, much of which is publicly-owned.

Public Safety

The continued expansion of rural residential communities adjacent to or within the forested landscape increases the potential for harm to individuals and property due to wildland fires (Map 24). Active fuel-load management programs are being implemented to control understory growth in the study area. Continued coordination with CDF, BLM and the Forest Service will be necessary to reduce the fire threat over time. This will be increasingly important as the region continues to grow.

Placer Legacy Program Opportunities

Acquisition/Easement

Acquisition activities will be mostly limited to land exchanges and acquisitions in support of state and federal conservation programs that are consistent with the objectives of Placer Legacy. A limited amount of conservation easement acquisitions may be used to protect riparian zones (especially where special status amphibians are present), old growth coniferous forests, black oak, and chamise chaparral. Acquisition and/or easements may also be used to develop recreational areas, trailheads and trails. Timberland Protection Zones (TPZ) and to a lesser extent the County's Williamson Act will be promoted to protect agricultural lands and timber production areas.

Agency Coordination

It will be important to coordinate with the Bureau of Land Management and U.S. Forest Service for land acquisition and transfers within the study area, as they further the objectives of Placer Legacy and the local community. Coordination with the Bureau of Reclamation, State Parks and the U.S. Forest Service will be necessary to establish and improve trails, and trailheads.

Placer Legacy may also coordinate with the American River Watershed Group's activities within the watershed, including fuel load management and watershed management efforts. Coordination with CDF on the development of appropriate separators and buffers between timber areas and to assist with the development of fuel load management programs is important.

To the extent that the regulatory coverage is to be obtained for this area, it will be necessary to coordinate with the regulatory resource agencies on the development of an HCP/NCCP.

Education/Incentives

Placer Legacy will work with CDF and the American River Watershed Group to develop fuel load management guidelines and to implement fuel load management programs that protect property from wildland fires. Such efforts should also consider ecological factors and balance the impacts to the forest and the watershed with the need to protect property and lives.

Table 4-7. Foresthill Implementation Measures

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
FH-1.	Promote and encourage sustainable forestry practices that strengthen small timber companies.	X			X	X	
FH-2.	Work with timber interests in the western county to create additional outside markets for Placer County products.	X			X		
FH-3.	Work with timber interests in the foothills and Sierra Nevada to protect sustainable forest resources outside of designated development areas.	X	X			X	
FH-4.	Create more land use flexibility in timberland preservation zone (TPZ) regulations.	X		X			
FH-5.	Protect expansive areas of old growth black oak woodland, through conservation easements and agency land trades.		X				
FH-6.	Protect, through conservation easements and agency land trades, important remaining areas of wetlands, mountain meadow and riparian areas as habitat for special status amphibians.		X			X	
FH-7.	Provide incentives for property owners to enhance stream zone vegetation for wildlife habitat and water quality.		X				X
FH-8.	Work with local, state and federal agencies to protect important wildlife corridors and migration routes.		X				
FH-9.	Work with the Bureau of Land Management and Forest Service on appropriate land transfers that further the conservation objectives of Placer Legacy and are responsive to local community concerns.		X	X	X	X	X
FH-10.	Work with the Bureau of Land Management, Forest Service, and Bureau of Reclamation to improve access to an interconnected county- wide system of trails and parks.			X			
FH-11.	Identify, develop and improve appropriate river access points and other important trailheads.			X			
FH-12.	Designate and protect scenic transportation corridors along Foresthill Road, Colfax-Iowa Hill Road, and Mosquito Ridge Road.		X			X	

Table 4-7 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
FH-13.	Provide discretionary funds to protect historical and cultural resources in Foresthill, Michigan Bluff, and other areas.				X		
FH-14.	Preserve scenic transportation corridors and ridgelines that contribute to the quality and value of the region.		X			X	
FH-15.	Create buffers and separators between large timber operations and rural residential use.	X				X	
FH-16.	Reduce the potential for wildland fires by working with other agencies to establish buffers and mange fuel loads.						X

SECTION H. LOWER SIERRA

Physical description

The *Lower Sierra* study area is bounded by the Bear River to the west, the north fork of the American River to the east, the north end of the Baxter/Alta areas to the north and the southerly boundary of the Meadow Vista community to the south (Map 4). In the Dutch Flat and Gold Run area, placer mining activities forever changed the landscape. Large tracts of lands were hydraulically mined for gold; the sediments washed into the American River and ultimately into the Sacramento River/Delta system. Evidence of this mining activity is found throughout the study area.

The area is dominated by rural residential land uses and one incorporated community, the City of Colfax. Unincorporated communities include Meadow Vista, Applegate, Weimar, Cape Horn, Gold Run, Dutch Flat, Alta, and Baxter (Maps 8 and 9). There are small pockets of urban land uses scattered throughout the region. The single largest urban area is in the City of Colfax, where public infrastructure is provided. Small urban areas also exist in Meadow Vista, Applegate and Dutch Flat as well as some limited highway commercial areas. The area ranges in elevation from 1800 feet near Meadow Vista to 4000 feet along Moody Ridge east of Baxter.

The majority of land is in the private sector. The only large-scale mining operation today is a hard rock mining site on the Bear River at the eastern end of Combie Lake in Meadow Vista. A small amount of agricultural development is present, including Christmas tree farms, some orchard crops, and grazing. The region was once an important contributor to the county's agricultural economy as evidenced by the now defunct operation of the Colfax Fruit Growers Association. Agricultural water deliveries are available to some properties via ditch conveyance facilities owned and managed by the Placer County Water Agency and other water agencies.

The southern end of the study area is a transition between the blue oak woodland belt of the foothills and the yellow pine forest belt of the Sierra Nevadas. Black oaks are also known to exist throughout this study area. One large black oak on Moody Ridge is reputed to be the largest black oak in the state.

Trends

The area will continue to accommodate additional growth throughout the range of the study area. For the City of Colfax and the unincorporated areas, growth rates are significantly slower than growth rates in the more urban areas to the south. Due to a lack of public infrastructure, no urban development is anticipated outside the City limits of Colfax. Nevertheless, there is a significant holding capacity remaining on the lands within the study area and the popularity of the area will continue to result in new development activity. The majority of new development will be rural residential with parcel sizes ranging between 1 and 10 acres in size.

With the potential widening of Interstate 80 and the acceptability of rail as a commute method, the area will increasingly be seen as a bedroom community for employment centers in South Placer and Sacramento.

The area will also continue to be a key staging and ingress/egress point for whitewater river rafting and kayaking and hiking on the north fork of the American River.

Stressors and Conflicts

Agriculture – Agricultural land uses still remaining in the area will continue to face conflicts with residential land uses. Most of these conflicts are localized neighborhood disputes. With lot sizes typically ranging between 1 acre to 10 acres/dwelling unit, lands in the study area are being subdivided and the fragmentation reduces the viability of the land for agricultural production. Large-scale farm operations are non-existent in the area and are unlikely to return given the current land use configuration.

Biological Resources – The study area lies in a transition between the Sierra Foothills, dominated by oak woodland forests and grasslands, and the yellow pine forest of the west slope. The majority of the study area has been fragmented by road construction and the subdivision of property for rural residential land uses. The Bear River borders the study area on the west side. Fisheries have been impacted by past mining activities and the presence of dams at Camp Far West, Combie Lake and Rollins Reservoir.

Outdoor Recreation – The plan area has access to the American River Canyon via a number of roads and trails, including Iowa Hill Road, Yankee Jim Road, the Stevens' Trail and others. The river canyon provides a significant amount of public recreation through spring and fall. The area is relatively undeveloped for recreational purposes and numerous trails and access points are informal and poorly marked. Many of the parking and staging areas are also informal and are in need of restroom facilities and other amenities. The Giant Gap area long the north fork of the American River is arguably one of the most dramatic landscapes in Placer County and the region. Due to limited public access to this area, few know of the value of this scenic resource. Within the City of Colfax, recreational opportunities are limited. With an increasing population, recreational demands will increase over time.

Cultural Resources – For the most part, cultural resources are associated with the historic structures in the City of Colfax, old farm buildings, and remnants of historic mining activities. The area has a rich cultural history and prehistory, but much has been lost over time. It is anticipated that losses will continue to occur without the development of incentive or regulatory programs. It is not anticipated that a regulatory program will be established in the foreseeable future.

Scenic Resources/Urban Separators – The area abounds in scenic resources. The pastoral setting of the rural residential environment with oak woodlands mixed with coniferous forests are one reason for the region's popularity. Continued growth and development will impact scenic resources along transportation corridors such as Interstate 80 and Placer Hills Road. Most

impacts will be associated with tree removal, construction activities and road cuts. The continued fragmentation of the landscape will also detract from the scenic qualities of the area.

Public Safety – The primary conflict or stressor for public safety is associated with the rural residential mix in the forested region. Similar to other regions of Placer County, there exists a potential for wildland fires to be catastrophic because of fuel load build-up and the close proximity of housing to the forested environment. In addition, the proximity of the area to fires initiated within the American River Canyon could also cause harm to individuals and property. It is estimated that a fire starting in the bottom of the canyon can reach the top of the ridge within approximately 30 minutes. The area immediately to the west of the canyon is populated with residential densities between 1 and 10 acres per dwelling unit. Evacuation from this area and access for emergency vehicles is difficult because of the terrain and numerous private roads.

Placer Legacy Program Opportunities

Acquisition/Easement

The use of conservation easements and outright acquisition will not be a priority for Placer Legacy in this study area. However, easements, and to a lesser degree acquisition, may be used in a limited capacity to enhance recreational opportunities (e.g., trailhead construction and trail development) and to protect scenic vistas. The protection of large tracts of land through acquisition will be limited because of the fragmentation that already exists and because there are few sensitive species present. If acquisition for biological resource values does occur, it will be associated with the protection of sensitive habitats, including riparian corridors and possibly mixed conifer and black oak woodland habitats, if willing sellers are available.

Agency Coordination

Placer Legacy will need to cooperate with the City of Colfax and the Colfax Park and Recreation Commission to establish priorities for joint projects in the region (e.g., establishment of a Stevens Trail trailhead). If comprehensive regulatory coverage is provided for this area through an HCP/NCCP, it will be necessary to cooperate with state and federal regulatory resource agencies (e.g., California Department of Fish and Game and the U.S. Fish and Wildlife Service). Coordination with CDF regarding fuel load management plans may also be warranted where public safety concerns are being evaluated and joint planning can satisfy the objectives of Placer Legacy. Placer Legacy will also coordinate its activities with the implementation of watershed management plans where such efforts further the objectives of the program.

Education/Incentives

Placer Legacy may provide an incentive to owners of historical structures to rehabilitate their properties. Direct funding or financial assistance may be provided to insure that important historical structures are protected (e.g., Dutch Flat Hotel).

Placer Legacy also will work with CDF to develop fuel load management guidelines and to implement fuel load management programs that protect property from wildland fires. Such

efforts should also consider ecological factors and balance the impacts to the forest and the watershed with the need to protect property and lives.

Table 4-8. Lower Sierra Implementation Measures

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
LS-1.	Promote and encourage sustainable forestry practices that strengthen small timber companies.	X			X		
LS-2.	Work with timber interests in the western county to create additional outside markets for Placer County products.	X			X		
LS-3.	Work with timber interests in the foothills and Sierra Nevada to protect sustainable forest resources outside of designated development areas.		X	X		X	
LS-4.	Identify and protect areas of old growth Black Oak woodland.		X			X	
LS-5.	Protect important remaining areas of wetlands, mountain meadow and riparian habitat.		X			X	
LS-6.	Improve connectivity and quality of stream zone vegetation for wildlife habitat and water quality.		X				
LS-7.	Work with local, state and federal agencies to protect wildlife corridors in the region that provide connectivity to adjacent areas.		X				
LS-8.	Work with the Bureau of Land Management on appropriate land transfers that further the conservation objectives of the Program.		X	X	X	X	X
LS-9.	Work with the BLM, USFS and BOR to improve access to an interconnected countywide system of trails and parks throughout all of Placer County.			X			
LS-10.	Work with the BLM to establish a permanent trailhead for the Stevens' Trail near Colfax.			X			
LS-11.	Provide additional improvements to Placer County's Bear River campground facilities.			X			
LS-12.	Identify, develop, and improve appropriate river access points and other important trailheads.			X			
LS-13.	Protect historic structures in the towns of Gold Run, Dutch Flat and Alta and in the City of Colfax.				X	X	
LS-14.	Protect scenic resources on the I-80 corridor between Clipper Gap and Crystal Springs.		X			X	

Table 4-8 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
LS-15.	Preserve scenic transportation corridors and ridgelines that contribute to the quality and value of the region.		X			X	
LS-16.	Reduce the potential for wild land fires by working with other agencies to establish buffers and mange fuel loads.						X

SECTION I. WEST SLOPE SIERRA

Physical description

The *West Slope Sierra* study area, consisting of the upper western slope of the Sierra Nevada portion of Placer County, is a resource-rich, sparsely populated part of the County. Of all the study areas, it is the largest and least impacted by development. Although it contains as many vegetation communities as the other study areas combined, it is considered to be one study area due to the small human population and because recommendations tend to be broad in scale and scope. The small population centers in this area are clustered around the I-80 corridor and include Nyack, Emigrant Gap, Cisco Grove, and Serene Lakes.

The area spans over 7,000 feet in elevation, from 1,500 feet in the lower reaches of the American River Canyon, to 9,006 feet at Granite Chief peak, the highest point in the County. This topographic variation produces several distinct vegetation belts, ranging from foothill woodland/chaparral in the river canyons, to westside yellow pine (which includes ponderosa pine, black oak, live/interior oak, douglas-fir, closed-cone pine, and white fir), Lodgepole pinered fir (above 6,000 feet), subalpine conifers (above 7,000 feet) and small areas of fragile alpine dwarf shrub communities above 8000 feet.

The river canyons allow the penetration of low-elevation vegetation communities far into the Sierra Nevada, resulting in greater ecological diversity. The north fork of the American River is not impounded until Lake Clementine, in the Auburn State Recreation Area, earning its upper portion a "wild and scenic" designation (Eastern Placer Protected Areas map). The upper north fork, which contains several private inholdings, is part of the largest roadless area in Placer County, all of which have been targeted for conservation by the U.S. Forest Service.

The landscape of the western Sierra Nevada in Placer County, as in other counties, is strongly characterized by the checkerboard ownership pattern resulting from the federal government's deeding of alternate sections to the railroads in the 1860s (Map 10). The Tahoe and Eldorado National Forests manage most of the public land in this area, while the Bureau of Land Management (BLM) also manages several parcels along the lower North Fork of the American. Both the Tahoe National Forest and BLM have increased their management base in Placer County in recent years, through land swaps and outright purchase. Most of this area is managed for timber. Sierra Pacific Industries and numerous smaller timber operators also own land throughout the region.

This area contains several roadless areas larger than 5,000 acres, which are now given increased management/conservation attention through a roadless area management plan recently issued by the Forest Service (Map 28). Isolated stands of old growth forest are scattered throughout the study area, though most of the area has been logged several times. Remaining old growth conifer forests provide important nesting habitat for the California spotted owl, recently petitioned for listing under the federal Endangered Species Act, as well as the Northern goshawk and a diversity of other species. Mammals with large area requirements, such as the Pine marten, have been greatly reduced in numbers, as their habitat has been fragmented and altered by roads, timber harvest, and grazing activities. Three formerly widespread special status

mammals, the Bighorn Sheep. Wolverine and Sierra Nevada red fox, are no longer known to occur in Placer County.

Trends

A number of trends will affect the *West Slope Sierra* study area. The cost of housing in this portion of the study area is less than other regions of Placer County and consequently retirees and other limited-income individuals are continuing to move into the region. The I-80 corridor remains a popular outdoor recreation destination, with easy access to numerous hiking trails and ski areas, as well as a major conduit for Lake Tahoe, Reno and other interstate traffic.

The value of lumber and the age of timber stands will affect how private forest lands are managed and the pace at which harvesting is to occur. The U.S. Forest Service's Sierra Nevada Framework planning program will set new standards and practices for timber management in the region, and may have a significant impact on harvesting. The Draft Environmental Impact Statement was released in May of 2000 to examine the environmental effects of a range of possible future management scenarios for the Modoc, Lassen, Plumas, Tahoe, Eldorado, Stanislaus, Sierra, Inyo and Sequoia National Forests (NF), the Lake Tahoe Basin Management Unit and the portion of the Humboldt-Toiyabe NF in the Sierra Nevada. The EIS will not affect private land.

Stressors and Conflicts

Agriculture – A chief stressor/conflict in this area is associated with seasonal grazing of sheep and cattle in the Sierra Nevada. In this case it is the agricultural activity which is causing the stress upon the environment. Livestock are doing less damage to the Sierra Nevada than occurred earlier in the 1900s when grazing was effectively unregulated. Cattle grazing, if well managed, can assist with fuel load management and thus reduce wildfire hazard. Overgrazing, however, can cause significant damage to sensitive soils and plants, while attracting weedy species. Cattle grazing in the riparian zone also has the potential to create harm to this sensitive resource.

Silvicultural activities also create impacts to the study area. The management of the forest for timber production creates a number of conflicts with the natural communities in the Sierra Nevada. Even-aged forests managed for timber production are not as biologically diverse as the forests that existed before the landscape was modified for production purposes. The construction of roads for logging purposes has also significantly fragmented the landscape affecting wildlife movement and causing erosion. In some areas, impacts to riparian zones have been severe, including sedimentation associated with erosion.

Biological Resources – There are many stressors and conflicts that impact Sierra Nevada ecosystems. Virtually the entire study area is managed for timber production or for multiple use, including grazing, off-road vehicle use, hunting and fishing, mining, hiking, cycling, horseback riding, and camping. In addition to fostering these uses, the Forest Service is also charged with managing the forest for its conservation values. These conflicting management goals result in

highly variable conditions throughout the forest. In general, most natural communities have been disturbed to some degree by human activity.

With the exception of new or expanded ski resort areas along I-80, this area faces little new development threat. The major activity influencing natural communities is timber harvesting, which is occurring on both private and public lands. Impacts from logging operations have the potential to threaten a number of sensitive species. Two of these are being monitored by resource agencies. The California Spotted Owl, an old-growth dependent species, was recently petitioned for listing under the federal Endangered Species Act. The Northern Goshawk is also being closely monitored in order to determine whether a listing is warranted.

Outdoor Recreation – The use of the public lands in this study area are important locally and nationally as a recreational resource. Numerous nationally recognized recreational events occur here, including the Tevis Cup and the Western States 100-mile Run. Trails such as the Pacific Crest trail for hiking and backpacking and the Rubicon Trail for off-road vehicles draw individuals from afar (see Map 21b). The popularity of these trails for day or multi-day trips may result in conflicts between recreational users, and continues to stress its resources, as do many other uses.

Cultural Resources – The U.S. Forest Service has the chief responsibility to protect cultural resources in the study area. Forest Service archaeologists have evaluated significant tracts of lands and have a data base of historical and pre-historical resources. Impacts to these resources will largely be evaluated by the Forest Service for mitigation requirements.

Scenic Resources/Urban Separators – Like so many other areas of Placer County, scenic resources abound throughout the study area. River canyons, large expanses of coniferous forests, alpine peaks, wet meadows, and riparian woodlands are all found in the area. Most of the land is accessible via County or Forest Service roads (see Map 21); consequently the public has wideranging access to the scenic qualities of the area. Impacts to this scenic quality are generally associated with logging practices or fire events, both of which can remove the forest canopy and expose large tracts of open lands. Fire is the more serious of the two. A limited amount of development and mining activity also may create minor impacts.

Urban separators are not a relevant issue in this study area in that no urban land uses exist.

Public Safety – Public safety is associated with the threat of large-scale forest fires. Very few permanent residences exist in the study area; consequently, the threat is mostly directed towards the plants and animals that are harmed by intense canopy fires.

Placer Legacy Program Opportunities

Acquisition/Easement

While there may be opportunities for acquisition in this area, it is not necessarily the best use of Placer Legacy funds. Rather, the U.S. Forest Service should be encouraged to acquire environmentally-sensitive lands and to promote more environmentally-sound logging practices. However, there may be opportunities for the County to acquire small parcels with high habitat

value for sensitive species, such as the Foothill or Mountain Yellow-Legged Frog, or important nesting areas for the California Spotted Owl.

Agency Coordination

Coordination with land management agencies, including the Forest Service and the Bureau of Land Management is extremely important, particularly regarding new land acquisitions. Oftentimes, the support of local government can give higher priority to an acquisition, providing an advantage over other projects competing for funding. In addition, Placer Legacy has been encouraged to participate in the review of the Sierra Nevada Framework for Conservation and Collaboration, and thus may have opportunities to encourage the management of Sierra Nevada forests to maximize biological diversity and preserve other open space resources.

Education/Incentives

Placer Legacy will work with CDF and the American River Watershed Group to develop fuel load management guidelines and to implement fuel load management programs that protect property from wildland fires. Such efforts should also consider ecological factors and balance the impacts to the forest and the watershed with the need to protect property and lives. The County may also provide incentives to private timber operators to preserve or selectively log tracts of old-growth forests.

Table 4-9. West Slope Sierra Implementation Measures

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
WS-1.	Promote and encourage sustainable forestry practices that strengthen small timber companies.	X			X		
WS-2.	Work with timber interests in the county to create additional outside markets for Placer County products.	X					
WS-3.	Work with timber interests in the foothills and Sierra Nevada to protect sustainable forest resources outside of designated development areas.	X	X			X	
WS-4.	Identify and protect areas of old growth conifers and black oak.		X			X	
WS-5.	Protect important remaining areas of wetlands, wet meadows, mountain meadow and riparian habitat.		X			X	
WS-6.	Work with local, state and federal agencies to protect wildlife corridors that provide connectivity to adjacent areas.		X				
WS-7.	Work with the Bureau of Land Management and U.S. Forest Service on appropriate land transfers that further the conservation objectives of Placer Legacy.		X	X	X	X	X
WS-8.	Work with the BLM, USFS and BOR to improve access to an interconnected countywide system of trails and parks throughout all of Placer County.			X			
WS-9.	Provide trailheads and acquire trail easements through private land to connect existing public land trail networks.			X			
WS-10.	Identify, develop and improve appropriate river access points and other important trailheads.			X			
WS-11.	Work with landowners to ensure that private ski resorts and other recreation facilities are managed in an environmentally sound manner.			X			
WS-12.	Provide discretionary funds to protect cultural resources and historic structures and sites.				X		

Table 4-9 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
WS-13.	Identify and protect sections of the historic Lincoln Highway through easements and/or landowner agreements.					X	
WS-14.	Identify and protect remaining sections of the Emigrant Trail through easements and/or landowner agreements.				X		
WS-15.	Protect scenic resources on the I-80 corridor.		X			X	
WS-16.	Protect scenic vistas and points at Emigrant Gap, the Yuba Gap, Royal Gorge and Shirley Canyon.		X			X	
WS-17.	Protect scenic corridors along Old Highway 40, Soda Springs Road.					X	
WS-18.	Preserve the wild and scenic river and roadless area along the upper portion of the North Fork of the American river.		X			X	
WS-19.	Reduce the potential for wildland fires by working with other agencies to establish buffers and mange fuel loads.						X
WS-20.	Reduce risks to individuals and property in areas prone to avalanche.						X

J. EAST SLOPE SIERRA

Physical description

The *East Slope Sierra* study area lies east of the Sierra Nevada crest and contains the Tahoe Basin and Truckee River watershed portions of Placer County. Precipitation in this area is significantly lower than on the west slope due to the rain shadow effect. Consequently, vegetation patterns are different than those on the west slope. Elevations range from 5,800 feet in Martis Valley to 8,900 feet near the Nevada State border.

The region has many unique natural communities for its relatively small geographic area. These communities include a large alpine lake (Lake Tahoe), a riverine corridor (Truckee River), a broad open sagebrush scrub and mixed conifer community (Martis Valley), montane wet meadows and montane riparian zones, alpine scrub, and subalpine mixed conifer forests.

This diversity of natural communities brings with it a diversity of plants and animals, including numerous sensitive species (e.g., Tahoe yellow cress, Willow Flycatcher, and the Lahontan cutthroat trout). Many of these communities are fragile and are highly susceptible to change from human-induced or natural events (e.g., fire). Because of the highly modified nature of the environment and because of competition for the landscape between humans and plants/animals, threats to biodiversity in this area may be nearly as high as in parts of western Placer County where growth and development impacts prevail.

The first recorded sighting of Lake Tahoe by a non-Native American was by John C. Fremont in February of 1844. In 1848 Kit Carson carved a trail over what is now called the Carson Pass. This trail became the main east/west route from Utah to California and was known as the Mormon-Emigrant Trail.

In 1859 the Comstock Lode was discovered in Virginia City, Nevada. During the 1860s, this region became the center of a lively commerce involving the silver mines in Virginia City and the Central Pacific Railroad, which was pushing over the Sierra toward the town of Truckee. Wood was needed to supply the mines, the new boomtowns and the railroad. An extensive logging empire was established on the east shore of Lake Tahoe from Incline Village to Glenbrook. The loggers clear-cut the entire shoreline until both the silver mines and the demand for timber declined in the late 1870s to early 1880s. By the 1890s, Lake Tahoe had become a popular retreat for the wealthy from San Francisco, Sacramento and Virginia City.

Today the Lake Tahoe basin remains an unparalleled outdoor recreation magnet, drawing large numbers of weekend visitors, mostly from the San Francisco Bay area and other parts of California. Summer crowds are drawn primarily to aquatic activities on Lake Tahoe, such as boating and swimming, as well as camping, hiking and cycling. In the winter, Placer County's numerous ski resorts host thousands of skiers, snowboarders and other winter vacationers. These wide-ranging and numerous outdoor recreation opportunities have resulted in large, fluctuating populations of seasonal residents, including both homeowners and seasonal employees. The shore of Lake Tahoe is developed around almost the entire west shore, along highway 89 (Map 6).

Trends

The trends in this study area vary widely from region to region. In the Tahoe Basin, the Tahoe Regional Planning Agency (TRPA) imposes development restrictions over and above those imposed by local government (create watershed map showing Tahoe Basin). The TRPA was formed to protect the water quality of Lake Tahoe and has local land use authority to try to limit the impact of new development upon the quality of the lake and streams that feed the lake. Among other restrictions, there has been a limit on new commercial construction in Placer County since the late 1980s. No more than a total of 150,000 new square feet was allowed to be built, of which 35,000 square feet remains unallocated in 2000. Once this remaining 35,000 square feet is built, no new commercial construction will be authorized unless an equal area is removed. Residential construction is limited to 88 dwelling units per year in Placer County. A number of other restrictions to maintain or improve the water quality of Lake Tahoe and to maintain the scenic qualities of the basin apply.

The situation in the Martis Valley is much different. With the availability of public infrastructure and without the regulation of the TRPA, development constraints are significantly less than in the Tahoe Basin. In the Placer County portion of Martis Valley, there are approximately 2,200 dwelling units. The valley has the potential for an additional 11,758 dwelling units under the existing community plan designations (Map 9), and the market demand for new construction is increasing. The housing is occupied by permanent residents employed locally or in the Reno/Spark/Carson City area, as well as by individuals purchasing a second or retirement home. The TRPA does not have jurisdiction over the Martis Valley, so market forces have a greater opportunity to impact the region's growth potential.

The Squaw Valley and Alpine Meadows areas are expected to continue to grow as well. Their combined holding capacity is much lower, but new development opportunities still exist in the community plans for the area (Map 9). Squaw Valley in particular will see significant changes with the introduction of a residential and commercial "village" on the ski area parking lot. The Truckee River corridor is constrained from significant new development because of the flooding potential, limited access and a lack of public infrastructure.

Stressors and Conflicts

Agriculture – Other than some seasonal cattle grazing, no significant agricultural production exists in the study area. The majority of the lands being managed for timber production occur in the *West Slope Sierra* study area.

Biological Resources - Many portions of this region contain sensitive natural communities. The water quality of Lake Tahoe has been very susceptible to degradation and eutrophication, due to erosion, sedimentation and high nutrient flows. Earlier use of septic systems also contributed to the degraded water quality. Martis Creek, Pole Creek, and Truckee River tributaries are important to Lahontan cutthroat trout. Squaw Valley contains one of the largest alpine wet meadows in the state.

All of these natural communities are impacted by activities occurring in the study area, which contains no fewer than five large alpine ski resorts in just Placer County (including Homewood,

Northstar, Alpine Meadows, Squaw Valley, and Sugar Bowl). Residential and commercial construction also continues to alter the landscape.

Impacts are not only associated with construction activities. The study area provides significant amenities and services for recreationists and travelers to the region. Golf courses have been constructed in Squaw Valley, Martis Valley (Lahontan project), Northstar and along the shores of Lake Tahoe. Hiking, backpacking and cross-country skiing are popular in the backcountry. Rafting is a popular activity during summer months on the Truckee River between Tahoe City and Alpine Meadows. Off-road vehicle use is popular in areas outside of the Tahoe Basin. All of these activities generate impacts on the natural communities in the region, many of which are very fragile and susceptible to impacts even from passive recreation activities.

Outdoor Recreation – The study area provides a tremendous diversity of outdoor recreation opportunities. As Placer County grows and growth continues to occur in Sacramento and the Bay Area, this area of Placer County will continue to see a growing demand for outdoor recreation. Market forces will respond to this demand for recreation by providing additional opportunities. Increased traffic and crowded weekend conditions at major ski resorts and trailheads are problematic impacts of this increase in demand.

Cultural Resources – Cultural resources, including Native American pre-historical resources, are found throughout the study area. Most cultural resources area congregated in the Lake Tahoe region. The Lake has been important for thousands of years, first for Native Americans, then for timber and then, starting in the 1890s, as a resort. The transformation of the area into a resort community over the past century has left many historical resources in varying states. Some have been protected as important public resources, others continue to be occupied as homes and commercial businesses.

The discovery of stone artifacts and projectile points confirms the presence of the Washoe Indians several thousand years ago. They migrated each summer from the Carson Valley area seeking the cooler temperatures, abundant fish, and plentiful game of Lake Tahoe. The Donner State Park (mostly in Nevada County) recognizes the plight of the Donner Party in the winter of 1846/7. Remaining structures and facilities from the 1960 Squaw Valley Winter Olympics represent more contemporary history. Some of the area's resources are protected. Much of what represented "old Tahoe" unfortunately has been lost to redevelopment, lack of maintenance or calamitous events. It is anticipated that impacts to cultural resources will continue to occur, particularly in the Tahoe Basin.

Scenic Resources/Urban Separators - The area also contains some of the most significant scenic resources in the county and state including Lake Tahoe, Donner Lake (mostly in Nevada County), the Sierra Nevada crest, Squaw Valley, Granite Chief Wilderness and Martis Valley. Continued growth and development will impact air and water quality, scenic vistas, and sensitive species. Balancing growth and tourism demands with the protection of sensitive resources will continue to be a real challenge for this area.

Public Safety – Numerous public safety stressors exist in the area. Many portions of the study area are susceptible to avalanches including Squaw Valley, Alpine Meadows, Ward Valley,

portions of the Truckee River Corridor, and Schallenberger Ridge above Donner Lake. Some avalanche events in the past, e.g., Alpine Meadows, have been catastrophic.

Placer Legacy Program Opportunities

Acquisition/Easement

It is not anticipated that Placer Legacy will play a significant role within the Tahoe Basin where acquisition and other conservation activities already occur through the Tahoe Regional Planning Agency, the Tahoe Conservancy and the U.S. Forest Service. Efforts will be concentrated outside the basin through coordination and cooperation with the Truckee/Donner Land Trust or other conservation organizations, including the Trust for Public Land.

Agency Coordination

In the Martis Valley area, Placer Legacy can work with the Town of Truckee and Nevada County to coordinate trail connections and other passive recreation opportunities, maintain mutually beneficial scenic corridors and landscapes, and preserve biological resources that cross the County line. To improve water quality within various creeks draining to the Truckee River, Placer Legacy can coordinate with the Lahontan Regional Water Quality Control Board. Coordination on the development of an HCP/NCCP throughout the eastern region will require the cooperation of the County, the Lahontan Water Quality Control Board, and state and federal resource regulatory agencies.

Education/Incentives

Education and incentives will not be a high priority for Placer Legacy in the *East Slope Sierra* study area. Numerous conservation, tourism and regulatory programs already exist. Program emphasis will be placed upon regulatory coordination to protect open space, habitat restoration, and joint open space acquisition efforts.

Table 4-10. East Slope Sierra Implementation Measures

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
ES-1.	Promote and encourage sustainable forestry practices that strengthen small timber companies.	X					
ES-2.	Promote sales of locally grown produce and agricultural products by supporting farmers markets.	X					
ES-3.	Coordinate with the Forest Service to take advantage of opportunities for land swaps that achieve Placer Legacy goals.		X	X	X	X	X
ES-4.	Protect and restore, through conservation easements and/or interagency coordination, habitat for endangered and threatened species including Lahontan cutthroat trout and the Mountain yellow-legged frog.		X	X		X	
ES-5.	Protect important remaining areas of wetlands, mountain meadow, wet meadow and riparian habitat through conservation easements and/or interagency coordination.		X			X	
ES-6.	Unless otherwise protected by other means, protect wet meadow areas in the Martis Valley and Olympic Valley from incompatible adjacent development through the use of conservation easements and fee title acquisition.		X			X	
ES-7.	Protect river and stream corridors, specifically the Truckee River, Martis Creek, Coldstream Creek and Pole Creek from incompatible development.		X			X	
ES-8.	Work with local, state and federal agencies to protect wildlife corridors between major habitat areas.		X				
ES-9.	Develop trailheads and trail connections that improve public access to an interconnected county- and region-wide system of trails and parks.			X			
ES-10.	Create nature centers and interpretive trails to educate the public about the natural history of the region.			X	X		
ES-11.	Work with landowners to insure that private recreation facilities are managed in an environmentally responsible manner.			X			

Table 4-10 (Continued)

		Agri- culture	Bio- logy	Rec- reation	Cul- tural	Scenic	Public Safety
ES-12.	Work with local, state and federal agencies to protect petroglyphs and other native American cultural and archeological resources.				X		
ES-13.	Provide discretionary funds to protect historical buildings and old Tahoe landmarks.				X	X	
ES-14.	Identify and preserve scenic transportation corridors and ridgelines that contribute to the quality and value of the region.					X	
ES-15.	Enhance watershed retention and diminish the effects of flooding where possible.						X
ES-16.	Reduce the potential for wildland fires by working with other agencies to establish buffers and reduce fuel loads.						X
ES-17.	Reduce risks to individuals and private property in areas prone to avalanche.						X

Table 4-11. Vegetation Summary by Study Area.

		Wester	n Placer C	ounty			Easter	n Placer (County	
Community Type	Auburn / Bowman	Loomis Basin	Agri- cultural Valley	South Placer Urban	Sheridan/ Garden Bar	West Slope Sierra	East Slope Sierra	Lower Sierra	American River Canyon	Forest- hill
Sagebrush	0	0	0	0	0	17	4,741	0	0	0
Jeffrey Pine/Eastside Pine	0	0	0	0	0	743	6,240	0	0	0
Alpine Dwarf Shrub	0	0	0	0	0	191	0	0	0	0
Subalpine Conifer	0	0	0	0	0	1,245	307	0	0	0
Lodgepole Pine/Red Fir/Aspen	0	0	0	0	0	58,004	16,818	0	0	0
Montane Chaparral	0	0	0	0	0	70,615	18,324	0	0	66
Montane Riparian	0	0	0	0	0	2,241	515	0	0	0
Wet Meadow	0	0	0	0	0	5,243	3,176	0	0	0
Closed Cone Pine-Cypress	0	0	0	0	0	85	0	0	0	0
White Fir	0	0	0	0	0	0	110	0	0	0
Sierran Mixed Conifer	0	0	0	0	0	168,286	45,303	463	0	323
Douglas Fir	124	27	0	0	21	10,563	0	7,988	2,021	5,795
Ponderosa Pine	54	23	0	0	0	24,722	0	3,529	1,662	8,149
Black Oak/Conifer	534	8	0	0	50	7,308	3,544	7,507	4,498	6,369
Interior/Canyon Live Oak	3,389	626	0	0	1,227	48,632	0	12,167	11,634	7,191
Mixed Chaparral	402	300	0	3	759	6,655	0	1,410	3,487	1,061
Blue Oak/Foothill Pine	924	846	0	34	1,501	10	0	462	2,332	252
Blue Oak Woodland	9,666	15,030	100	3,500	24,936	1	0	2,493	225	76
Valley Foothill Riparian	575	2,538	1,296	2,760	4,281	0	0	4	0	0
Freshwater Emergent Wetland	0	2	1,677	475	455	0	9	0	0	0
Vernal Pool Grassland (Hardpan)	0	0	7,182	6,605	2,771	0	0	0	0	0
Vernal Pool Grassland (Mehrten)	0	78	0	2,316	1	0	0	0	0	0
Non-Vernal Pool Grassland	3,443	8,277	20,387	23,568	29,428	687	1	1,491	321	298
Open Water	167	4,006	180	68	824	4,015	49,880	615	245	8
Agriculture-Crops-Irrigated Pasture	85	1,383	20,420	3,202	4,885	0	0	5	0	0
Agriculture-Orchard- Vineyard	0	0	262	187	973	0	0	0	0	0
Barren	71	92	4,316	624	946	17,604	3,596	245	300	77
Urban	8,553	12,285	230	24,345	1,465	1,705	6,524	3,978	15	1,350
TOTAL	27,987	45,521	56,051	67,687	74,523	428,572	159,088	42,357	26,739	31,015

Vegetation/landcover acreages derived from composite GIS layer created by Placer County Planning Dept. (100-ft pixel resolution) Sources:

DFG: Valley Vegetation (1996), CDF: Foothill/Lower Sierra Vegetation (1999), USFS: Upper Sierra Vegetation (1990); Wet Meadow Vegetation (1999), Placer County: Martis Valley Vegetation (1974), DWR: Urban Areas (1994), DOC: Urban Areas (1998), Foothill Associates: Valley/Foothill Riparian Vegetation (1999), NorthFork Associates: Vernal Pools (1999)

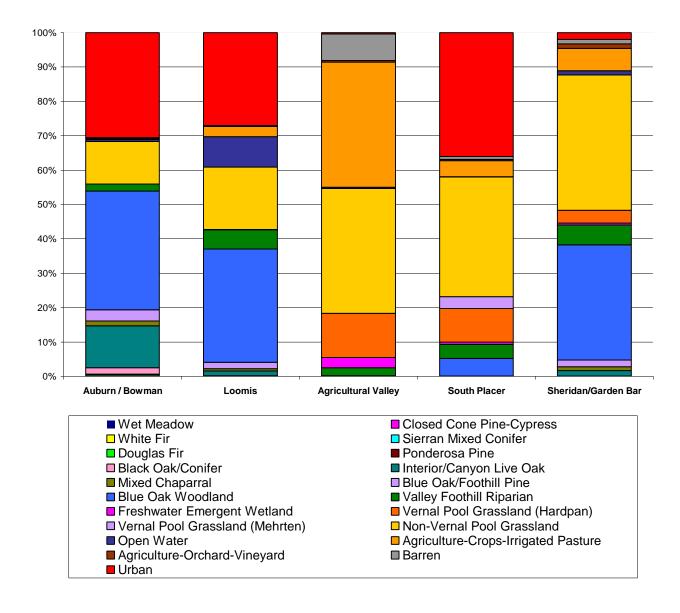


Figure 4-1. Western Placer Vegetation by Study Area

Source: see Table 4-11.

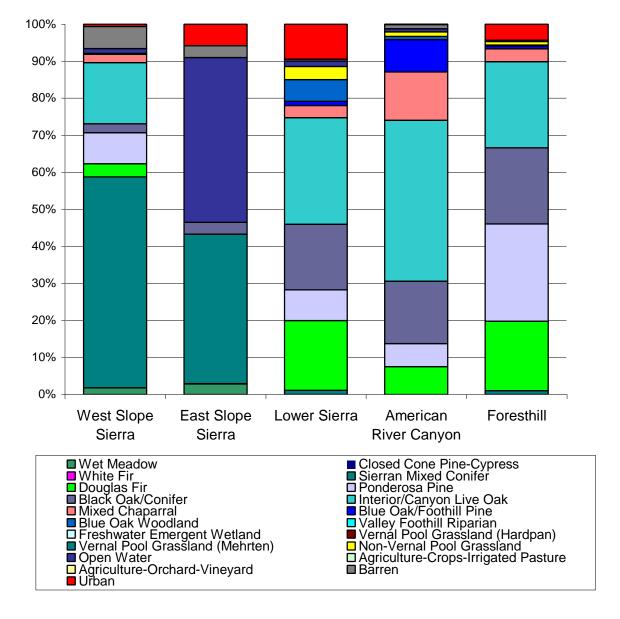


Figure 4-2. Eastern Placer Vegetation by Study Area

Source: see Table 4-1.

3,500 19,889 8,829 ■ SEMIAGRICULTURAL & INCIDENTAL TO AGRICULTURE 3,000 ■ DECIDUOUS FRUITS AND NUTS □TRUCK, NURSERY AND BERRY CROPS 2,500 PASTURE ■ FIELD CROPS 2,000 ■ RICE ■ IDLE FARMLAND ■ VINEYARD 1,500 ■ GRAIN AND HAY CROP ■ CITRUS AND SUBTROPICAL 1,000 500 Agricultural South Placer Loomis Basin Auburn / American River Foresthill Lower Sierra West Slope East Slope Valley Urban Garden Bar Bowman Canyon Sierra Sierra

Figure 4-3. Agricultural Land Use by Study Area

Source: see Table 3-10.

■ Yellow Pine Forest 20,000 ■ Montane Chaparral 18,000 ■ Montane Wet Meadow / Riparian 16,000 ■ Mixed / Chamise Chaparral ■ Montane Hardwood Forest 14,000 ■ Foothill Oak Woodland 12,000 ■ Valley / Foothill Riparian 10,000 ■ Valley Wetlands 8,000 ■ Vernal Pool Grassland 6,000 □ Annual Grasslands / Pasture □ Croplands / Orchards 4,000 Open Water 2,000 ■ Barren / Other 0 ■ Urban CHACK COPLY AND BEAR CHACK INCOPLY CHACK SCHOOL CHACK SOCKEWIFE

Figure 4-4. City Vegetation Composition

Source: see Table 3-8.